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15. ACTIVITY FACTORS

In calculating exposure, a person's average daily dose is determined from a combination of variables including the pollutant concentration, exposure duration, and frequency of exposure (Sexton and Ryan, 1987). These variables can be dependent on human activity patterns and time spent at each activity and/or location. A person's total exposure can be predicted using indirect approaches such as computerized mathematical models. This indirect approach of predicting exposure also requires activity patterns (time use) data. Thus, individual or group activities are important determinants of potential exposure because toxic chemicals introduced into the environment may not cause harm to an individual until an activity is performed subjecting the individual to contact with those contaminants. An individual's choice on how to spend time will vary according to their occupation, hobbies, culture, location, gender, age, and personal preferences. Educational level attained and socioeconomic status also influence chosen activities and their duration.

The purpose of this section is to describe published time use studies that provide information on activities in which various individuals engage, length of time spent performing various activities, locations in which individuals spend time and length of time spent by individuals within those various microenvironments. According to Robinson and Thomas (1991), microenvironments refer to a combination of activities and locations that yield potential exposures. Information on time spent in specific occupations and residing in specific areas also is included in this section.

This section summarizes data on how much time individuals spend doing various activities and in various microenvironments. These data cover a wide scope of activities and populations. The following table (Table 15-1) should be used as a guide to locating the information relevant to activities and microenvironments of concern. Assessors can consider using these data to develop exposure duration estimates for specific exposure scenarios. Available studies are grouped as key or relevant studies. The classifications of these studies are based on the applicability of their data to exposure assessments. All tables that provide data from these studies are presented at the back of this chapter.

15.1. ACTIVITY PATTERNS

The purpose of this section is to describe published time use studies that provide information on time-activity

patterns of the national population and various sub-populations in the U.S. The studies involve survey designs where time diaries were used to collect information on the time spent at various activities and locations for children, adolescents, and adults, and to collect certain demographic and socioeconomic data. Available studies on time-activity data are summarized in the following sections. It should be noted that other site-limited studies, based on small sample sites, are available, but are not presented in this section. The studies presented in this section are ones believed to be the most appropriate for the purpose of the handbook. Activity pattern studies are presented in Sections 15.1.1 and 15.1.2.

15.1.1. Key Activity Pattern Studies

Timmer et al. (1985) - How Children Use Time - Timmer et al. (1985) conducted a study using the data obtained on children's time use from a 1981-1982 Panel study. This study was a follow-up of households from a previous survey conducted in 1975-76. The 922 respondents in the 1981-82 study were those who had completed at least three out of four waves of interview in the 1975 - 1976 survey. Timmer et al. (1985) conducted the survey during February through December 1981, and households were contacted four times during a 3 month interval of the survey period. The first contact was a personal interview, followed by subsequent telephone interviews for most of the respondents. However, families with children were contacted personally and questionnaires were administered to a maximum of three children per household.

The children surveyed were between the ages of 3 and 17 years and were interviewed twice. The questionnaires administered to children had two components: a time diary and a standardized interview. The time diary involved children reporting their activities beginning at 12.00 a.m. the previous night; the duration and location of each activity; the presence of another individual; and whether they were performing other activities at the same time. The standardized interview administered to the children was to gather information about their psychological, intellectual (using reading comprehension tests), and emotional well-being; their hopes and goals; their family environment; and their attitudes and beliefs.

For preschool children, parents provided information about the child's previous day's activities. Children in first through third grades completed the time



diary with their parents assistance and, in addition, completed reading tests. Children in fourth grade and above provided their own diary information and participated in the interview. Parents were asked to assess their children's socioemotional and intellectual development. A survey form was sent to a teacher of each school-age child to evaluate each child's socioemotional and intellectual development. The activity descriptor codes used in this study were developed by Juster et al. (1983). The activity codes and descriptors used for the adult time diaries in both surveys are presented in Appendix Table 15A-1.

The mean time spent performing major activities on weekdays and weekends by age and sex, and type of day is presented in Table 15-2. On weekdays, children spend about 40 percent of their time sleeping, 20 percent in school, and 10 percent eating, washing, dressing, and performing other personal activities (Timmer et al., 1985). The data in Table 15-2 indicates that girls spend more time than boys performing household work and personal care activities, and less time playing sports. Also, children spend most of their free time watching television. Table 15-3 presents the mean time children spend during weekdays and weekends performing major activities by five different age groups. Also, the significant effects of each variable (i.e., age, sex) are shown in Table 15-3. Older children spend more time performing household and market work, studying and watching television, and less time eating, sleeping, and playing. Timmer et al. (1985) estimated that on the average, boys spend 19.4 hours a week watching television and girls spend 17.8 hours per week performing the same activity.

A limitation associated with this study is that the data do not provide overall annual estimates of children's time use since the data were collected only during the time of the year when children attend school and not during school vacation. Another limitation is that a distribution pattern of children's time use was not provided. In addition, the survey was conducted in 1981 so there is a potential that activity patterns in children may have changed significantly from that period to the present. Therefore, application of these data for current exposure situations may bias exposure assessments results. An advantage of this survey is that diary recordings of activity patterns were kept and the data obtained were not based completely on recall. Another advantage is that because parents assisted younger children with keeping their diaries and with interviews, any bias that may have been

created by having younger children record their data should have been minimized.

James and Knuiman (1987) - An Application of Bayes Methodology to the Analysis of Diary Records from a Water Use Study - In 1987, James and Knuiman provided a distribution of the amount of time (1-20 minutes) spent showering by individuals in households located in Australia. The distribution presented in the study of James and Knuiman was based on diary records of 2,500 households. James and Knuiman (1987) reported that 50 additional households provided data for shower durations exceeding 20 minutes, but were excluded from their analysis because specific values over 20 minutes were not reported. Using the data of James and Knuiman, a cumulative frequency distribution was derived for the handbook, based on the 2,550 households and is presented in Table 15-3. Based on the results in Table 15-3, approximate showering times are 7 minutes for the median value, 13 minutes for the 90th percentile, 16 minutes for the 95th percentile, and >20 minutes for the 99th percentile. The mean shower length is approximately 8 minutes using the shower durations of 1 to 20 minutes.

A mean value could not be calculated using the data for the 50 households that reported showering time >20 minutes. However, if a 30 minute showering time was assumed for the >20 minutes duration, the mean value would be 8.5 minutes as compared to a mean of 8 minutes if these households are excluded. Therefore, including the 50 additional households would give a similar mean and the results at the upper end of the distribution would not be affected.

A limitation of the study is that the data are from households in Australia and may not be representative of U.S. households. An advantage is that it presents cumulative distribution data.

Robinson and Thomas (1991) - Time Spent in Activities, Locations, and Microenvironments: A California-National Comparison - Robinson and Thomas (1991) reviewed and compared data from the 1987-88 California Air Resources Board (CARB) time activity study and from a similar 1985 national study, *American's Use of Time*. Data from the national study were recorded similarly to the CARB code categories, in order to make data comparisons (Robinson and Thomas, 1991).

The CARB study involved residents who lived in the state of California. One adult 18 years or older was randomly sampled in each household and was asked to complete a diary with entries for the previous day's



activities and the location of each activity. Time use patterns for other individuals 12 years and older in the households contacted were also included in the diaries. Telephone interviews based on the random-digit-dialing (RDD) procedure were conducted for approximately 1,762 respondents in the CARB survey. These interviews were distributed across all days of the week and across different months of the year (between October 1987-August 1988).

In the 1985 National study, single day diaries were collected from over 5,000 respondents across the U.S., 12 years of age and older. The study was conducted during January through December 1985. Three modes of time diary collection were employed for this survey: mailback, telephone interview, and personal interview. Data obtained from the personal interviews were not used in this study (Robinson and Thomas, 1991). The sample population for the mail-back and telephone interview was selected based on a RDD method. The RDD was designed to represent all telephone households in the contiguous United States (Robinson and Thomas, 1991). In addition to estimates of time spent at various activities and locations, the survey design provided information on the employment status, age, education, race, and gender for each member of the respondent's household. The mail-back procedure was based on a "tomorrow" approach, and the telephone interview was based on recall. In the "tomorrow" approach, respondents know, and agree ahead of time, that they will be keeping a diary (Robinson and Thomas, 1991).

Data comparisons by Robinson and Thomas (1991) were based on 10 major activity categories (100 sub-category codes) and 3 major locations (44 sub-location codes) employed in both the CARB and the 1985 national study. In order to make data comparisons, Robinson and Thomas (1991) excluded responses from individuals of ages 65 years and older and 18 years or younger in both surveys. In addition, only mail-back responses were analyzed for the 1985 national study. The data were then weighted to project both the California and national population in terms of days of the week, region, numbers of respondents per household, and 3 monthly seasons of the year (Robinson and Thomas, 1991).

Table 15-5 shows the mean time spent in the 10 major activities by gender and for all respondents between the ages of 18-64 years (time use data for the individual activities are presented in Appendix Table 15A-2). In both studies respondents spent most of their time (642 mins/day) on personal needs and care (i.e., sleep).

Californians spent more time on paid work, education and training, obtaining goods and services, and communication, and less time on household work, child care, organizational activities, entertainment/social activities, and recreation than the national population. The male and female population closely followed the same trends as the general population. Table 15-6 shows the mean time spent at 3 major locations for the CARB and national study grouped by total sample and gender, ages 18-64 years (time use data for the 44 detailed microenvironments are presented in Appendix Table 15A-3). Respondents spent most of their time at home, 892 minutes/day for the CARB and 954 minutes/day for the national study. Californians spent more of their time away from home and traveling compared to the national population.

In addition, Robinson and Thomas (1991) defined a set of 16 microenvironments based on the activity and location codes employed in both studies. The analysis included data for adolescents (12-17 years) and adults (65 years and older) in both the CARB study and the mail-back portion of the 1985 national study (Robinson and Thomas, 1991). The mean duration of time spent in locations for total sample population, 12 years and older, across three types of locations is presented in Table 15-7 for both studies. Respondents spent most of their time indoors, 1255 and 1279 minutes/day for the CARB and national study, respectively.

Table 15-8 presents the mean duration of time and standard mean error for the 16 microenvironments grouped by total sample population and gender. Also included is the mean time spent for respondents ("Doers") who reported participating in each activity. Table 15-8 shows that in both studies men spend more time in work locations, automobiles and other vehicles, autoplaces (garages), and physical outdoor activities, outdoor sites. In contrast, women spend more time cooking, engaging in other kitchen activities, performing other chores, and shopping. The same trends also occur on a per participant basis.

Table 15-9 shows the mean time spent in various microenvironments grouped by type of the day (weekday or weekend) in both studies. Generally, respondents spent most of their time during the weekends in restaurants/bars (CARB study), motor vehicles, outdoor activities, social-cultural settings, leisure/communication activities, and sleeping. Microenvironmental differences by age are presented in Table 15-10. Respondents in the age groups 18-24 years and 25-44 years spent most of their time in



restaurants/bars and traveling. The oldest age group, 65 years and older, spent most of their time in the kitchen (cooking and other kitchen related activities) and in communication activities.

Limitations associated with the Robinson and Thomas (1991) study are that the CARB survey was based on recall and the survey was performed in California only. Therefore, if applied to other populations, the data set may be biased. Another limitation is that time distribution patterns (statistical analysis) were not provided for both studies. Also, the data are based on short term studies. An advantage of this study is that the 1985 national study represents the general U.S. population. Also, the 1985 national study provides time estimates by activities, locations, and microenvironments grouped by age, gender, and type of day. Another advantage is that the data were compared and that, overall, both data sets showed similar patterns of activity (Robinson and Thomas, 1991).

Wiley *et al.* (1991) - *Study of Children's Activity Patterns* - The California children's activity pattern survey design provided time estimates of children (under 12 years old) in various activities and locations (microenvironments) on a typical day (Wiley *et al.*, 1991). The sample population, which consisted of 1,200 respondents (including children under 12 years of age and adult informants residing in the child's household), was selected using Waksberg RDD methods from English-speaking households. One child was selected from each household. If the selected child was 8 years old or less, the adult in the same household who spent the most time with the child responded. However, if the selected child was between 9 and 11 years old, that child responded. The population was also stratified to provide representative estimates for major regions of the state. The survey questionnaire included a time diary which provided information on the children's activity and location patterns based on a 24-hour recall period. In addition, the survey questionnaire included questions about potential exposure to sources of indoor air pollution (i.e., presence of smokers) on the diary day and the socio-demographic characteristics (i.e., age, gender, marital status of adult) of children and adult respondents. The questionnaires and the time diaries were administered via a computer-assisted telephone interviewing (CATI) technology (Wiley *et al.*, 1991). The telephone interviews were conducted during April 1989 to February 1990 over four seasons: Spring (April-June 1989), Summer (July-September 1989), Fall (October-December 1989), and Winter (January-February 1990).

The data obtained from the survey interviews resulted in ten major activity categories, 113 detailed activity codes, 6 major categories of locations, and 63 detailed location codes. The average time respondents spent during the 10 activity categories for all children are presented in Table 15-11. Also included in this table are the detailed activity, including its code, with the highest mean duration of time; the percentage of respondents who reported participating in any activity (percent doing); and the mean, median, and maximum time duration for "doers." The dominant activity category, personal care (night sleep being the highest contributor), had the highest time expenditure of 794 mins/day (13.2 hours/day). All respondents reported sleeping at night, resulting in a mean daily time per participant of 794 mins/day spent sleeping. The activity category "don't know" had a duration of about 2 mins/day and only 4 percent of the respondents reported missing activity time.

Table 15-12 presents the mean time spent in the 10 activity categories by age and gender. Differences in activity patterns for boys and girls tended to be small. Table 15-13 presents the mean time spent in the 10 activity categories grouped by seasons and California regions. There were seasonal differences for 5 activity categories: personal care, educational activities, social/entertainment, recreation, and communication/ passive leisure. Time expenditure differences in various regions of the State were minimal for childcare, work-related activities, shopping, personal care, education, social life, and recreation.

Table 15-14 presents the distribution of time across six location categories. The participation rates (percent) of respondents, the mean, median, and maximum time for "doers." The detailed location with the highest average time expenditure are also shown. The largest amount of time spent was at home (1,078 minutes/day); 99 percent of respondents spent time at home (1,086 minutes/participant/day). Tables 15-15 and 15-16 show the average time spent in the six locations grouped by age and gender, and season and region, respectively. There are age differences in time expenditure in educational settings for boys and girls (Table 15-15). There are no differences in time expenditure at the six locations by regions, and time spent in school decreased in the summer months compared to other seasons (Table 15-16). Table 15-17 shows the average potential exposure time children spent in proximity to tobacco smoke, gasoline fumes, and gas oven fumes grouped by age and gender. The sampled children spent more time closer to tobacco smoke (77



mins/day) than gasoline fumes (2 mins/day) and gas oven fumes (11 mins/day).

A limitation of this study is that the sampling population was restricted to only English-speaking households; therefore, the data obtained does not represent the diverse population group present in California. Another limitation is that time use values obtained from this survey were based on short-term recall (24-hr) data; therefore, the data set obtained may be biased. Other limitations are: the survey was conducted in California and is not representative of the national population, and the significance of the observed differences in the data obtained (i.e., gender, age, seasons, and regions) were not tested statistically. An advantage of this study is that time expenditure in various activities and locations were presented for children grouped by age, gender, and seasons. Also, potential exposures of respondents to pollutants were explored in the survey. Another advantage is the use of the CATI program in obtaining time diaries, which allows automatic coding of activities and locations onto a computer tape, and allows activities forgotten by respondents to be inserted into its appropriate position during interviewing (Wiley et al., 1991).

U.S. EPA (1992) - Dermal Exposure Assessment: Principles and Applications - U.S. EPA (1992) addressed the variables of exposure time, frequency, and duration needed to calculate dermal exposure as related to activity. The reader is referred to the document for a detailed discussion of these variables in relation to soil and water related activities. The suggested values that can be used for dermal exposure are presented in Table 15-18. Limitations of this study are that the values are based on small data sets and a limited number of studies. An advantage is that it presents default values for frequency and duration for use in exposure assessments when specific data are not available.

Tsang and Klepeis (1996) - National Human Activity Pattern Survey (NHAPS) - The National Human Activity Pattern Survey was conducted by the U.S. EPA (Tsang and Klepeis, 1996). It is the largest and most current human activity pattern survey available (Tsang and Klepeis, 1996). Data for 9,386 respondents in the 48 contiguous United States were collected via minute-by-minute 24-hour diaries between October 1992 and September 1994. Detailed data were collected for a maximum of 82 different possible locations, and a maximum of 91 different activities. Participants were selected using a Random Digit Dial (RDD) method and

Computer Assisted Telephone Interviewing (CATI). The response rate was 63 percent, overall. If the chosen respondent was a child too young to interview, an adult in the household gave a proxy interview. Each participant was asked to recount their entire daily routine from midnight to midnight immediately previous to the day that they were interviewed. The survey collected information on duration and frequency of selected activities and of the time spent in selected microenvironments. In addition, demographic information was collected for each respondent to allow for statistical summaries to be generated according to specific subgroups of the U.S. population (i.e., by gender, age, race, employment status, census region, season, etc.). The participants' responses were weighted according to geographic, socioeconomic, time/season, and other demographic factors to ensure that results were representative of the U.S. population. The weighted sample matches the 1990 U.S. census population for each gender, age group, census region, and the day-of-week and seasonal responses are equally distributed. Saturdays and Sundays were over sampled to ensure an adequate weekend sample.

The data presented are a compilation of 24-hour diary locations, activities, and follow-up exposure questions based on exposure-related events (personal, exposure, household characteristics, medical background) (Tsang and Klepeis, 1996). Data presented are reported in the form of means, percentages of time spent, and percentages of respondent occurrences. The diary data are useful for obtaining national representative distributions of time spent in a large variety of activities and locations in a single day (Tsang and Klepeis, 1996). According to Tsang and Klepeis (1996), the 24-hour diaries in the NHAPS are useful in probabilistic modeling (Monte-Carlo) that provides frequency distributions of exposure. Overall survey results indicate that for time spent in microenvironments, the largest overall percentage of time was spent in residential-indoors (67 percent), followed by time spent outdoors (8 percent), and then time spent in vehicles (5 percent) (Tsang and Klepeis, 1996). Tables 15-19 through 15-146 provide data from the NHAPS study. NHAPS data on the time spent in selected activities are presented in Tables 15-19 through 15-92. NHAPS data on the time spent in selected microenvironments are presented in Tables 15-93 to 15-139 and of these tables, Tables 15-66 through 15-139 present 24-hour cumulative statistics (mean, minimum, maximum, and percentiles) data for time spent in various activities and in various microenvironments.



- Tables 15-19 through 15-32 provide information on the frequency and duration of taking baths, frequency of taking showers, and on the amount of time spent in the shower or bathroom after completion of the activity.
- Table 15-33 provides the frequency for washing the hands in a day.
- Tables 15-34 through 15-36 present information on time spent by persons working with or being near foods while being grilled or barbecued; working with or near open flames; and working or being near excessive dust in the air.
- Tables 15-37 through 15-39 provide data for the number of times a vehicle was started in a garage or carport and if started with the door closed; and for time spent at a gas station or repair shop.
- Tables 15-40 through 15-42 present information on the number of times windows and doors were opened and the number of minutes they were left open at home while the respondent was at home.
- Tables 15-43 through 15-47 provide data for time spent in heavy traffic either running, walking, standing, or in a vehicle; and for time spent in indoor and outdoor parking lots and garages.
- Tables 15-48 through 15-50 present information for time spent working for pay; working at different times of day; and for the amount of that time was spent working outdoors.
- Tables 15-51 through 15-56 provide information for number of times of performing household tasks in a day such as vacuuming, and washing dishes and clothes in a residence.
- Tables 15-57 through 15-64 present data for number of times per day and the duration for playing in sand, gravel, and dirt; and for working in circumstances where one comes in contact with soil such as in a garden.
- Tables 15-65 through 15-67 provide information on the frequency of swimming in a fresh water swimming pool and the amount of time spent swimming during a 1-month period.
- Tables 15-68 through 15-87 present statistics for time spent in various major categories. They are as follows: Paid Work (main job); Household Work (food preparation and cleanup, cleaning house, clothes care); Child Care (indoor and outdoor playing); Obtaining Goods and Services (car repair); Personal Needs and Care (sleeping/napping); Free Time and Education (school); and Recreation (active sports, exercise, outdoor recreation).
- Tables 15-88 through 15-94 provide statistics for time spent in various activities that are the results of regrouping/combining activities described in Tables 15-68 through 15-87. Because the occurrences in some major categories were too small to conduct analyses, these categories were regrouped into broader categories so that new categories could be developed with a larger number of occurrences (Tsang and Klepeis, 1996). This regrouping was performed to create a better data set for estimating exposure activities from the available data (Tsang and Klepeis, 1996).
- Tables 15-95 through 15-103 provide cumulative statistics for time spent in various indoor microenvironments such as repair shops/gas stations; bar/ night club/bowling alley; and at school.
- Tables 15-104 through 15-112 present statistical data for time spent in various outdoor locations. These tables include data for locations such as schoolgrounds/ playground; parking lots; construction sites; parks and golf courses; and farms.



- Tables 15-113 through 15-120 present statistics for time spent in various locations in the home. Data are presented for the number of minutes spent in the kitchen, bathroom, bedroom, garage, basement, utility room or laundry room; in the outdoor pool or spa; and in the yard or other areas outside the house.
- Tables 15-121 through 15-130 provide data on time spent traveling and for traveling in various types of vehicles; and for time spent walking.
- Tables 15-131 through 15-140 provide statistics for total time spent indoors at home (categories regrouped/combined based on various data described in Tables 15-95 through 15-130), including all rooms; outdoors at home; traveling inside a vehicle; outdoors near a vehicle; outdoors other than near a residence; in an office or factory; in malls and other stores; in various public buildings; in bars, restaurants, etc.; and outdoor locations such as auto repair shops and laundromats.
- Table 15-141 provides the number of minutes spent in an activity or microenvironment where a smoker was present.
- Tables 15-142 and 15-143 present data for time spent smoking in a day.
- Tables 15-144 through 15-148 provide information for time spent smoking selected tobacco products such as cigars, cigarettes, and pipe tobacco.

Advantages of the NHAPS dataset are that it is representative of the U.S. population and it has been adjusted to be balanced geographically, seasonally, and for day/time. Also, it is representative of all ages, gender, and is race specific. A disadvantage of the study is that means cannot be calculated for time spent over 60, 120, and 181 minutes in selected activities. Therefore, actual time spent at the high end of the distribution for these activities cannot be captured.

15.1.2. Relevant Activity Pattern Studies

Robinson - Changes in Americans' Use of Time: 1965-1975 (1977) - Robinson (1977) compared time use data obtained from two national surveys that were conducted in 1965-1966 and in 1975. Each survey used the time-diary method to collect data. The 1965-66 survey excluded people in the following categories: (a) Non-Standard Metropolitan Statistical Area (non-SMSA) (designation of Census Bureau areas having no city with more than 50,000 population); (b) households where no adult members were in the labor force for at least 10 hours per week; (c) age 65 and over; and (d) farm-related occupations (Robinson, 1977). The 1,244 respondents in the 1965-66 study included either employed men and women or housewives (Robinson, 1977). The survey was conducted between November-December 1965 and March-April 1966. Respondents recorded their daily activities in time diaries by using the "tomorrow" approach. In this approach, diaries were kept on the day following the interviewer's initial contact. The interviewer then made a second call to the respondent to determine if the information in diaries were correct and to obtain additional data. Only one person per household was interviewed. The survey was designed to obtain information on time spent with family members, time spent at various locations during activities, and performing primary and secondary activities.

A similar study was conducted in 1975 from October through December. Unlike the 1965-1966 survey, the 1975 survey included rural areas, farmers, the unemployed, students, and retirees. Time diary data were collected using the "yesterday" approach. In this approach, interviewers made only one contact with respondents (greater than 1500) and the diaries were filled out based on a 24-hour recall (Robinson, 1977). Time diary data were also collected from the respondents' spouses.

In both surveys, the various activities were coded into 96 categories, and then were combined into five major categories. Free-time activities were grouped into 5 sub-categories (Appendix Table 15A-2). In order to compare data obtained from both surveys, Robinson (1977) excluded the same population groups in the 1975 survey that were excluded in the 1965-66 survey (i.e., farmers, rural residents).

Results obtained from the surveys were presented by gender, age, marital and employment status, race, and education. Robinson (1977) reported the data collected in hours/week; however, the method for converting daily



activities to hours/week were not presented. Table 15-149 shows the differences in time use by gender, employment, and marital status for five major activity categories and five subcategories for 1965 and 1975. Time spent on work related activities (i.e., work for pay and family care) was lower in 1975 than in 1965 for employed men and women. Table 15-149 also shows that there was an overall increase in free time activities for all the six groups. The difference in time use in 1965 and 1975 are presented by age, education, and race in Tables 15-150, 15-151, and 15-152, respectively. These tables include data for students and certain employed respondents that were excluded in Table 15-148 (Robinson, 1977). In 1975, the eldest group (ages 56-65 years) showed a decline in paid work, and an increase in family care, personal care and sleep (Table 15-150). Education level comparisons across the ten-year interval indicated that the less educated had a decrease in paid work and an increase in sleep and personal care; the most educated had an increase in work time and a decrease in other leisure (Table 15-151). For racial comparisons, Blacks spent less time at paid work than Whites across the ten-year interval (Table 15-152). Table 15-152 also shows that Blacks spent more time than Whites at free time activities in 1975.

A limitation of the study survey design is that time use data were gathered as social indicators. Therefore, the activity categories presented may not be relevant in exposure assessments. Another limitation is that statistical analysis of the data set was not provided. Additional limitations are that the time use data are old and the data may not reflect recent changes in time use. The 1965 and 1975 data sets excluded certain population groups and, therefore, may not be entirely representative of the U.S. population. Another limitation is that these are short-term studies and may not necessarily represent long-term activity patterns. An advantage of this study is that time use data were presented by age, gender, race, education level, and employment and marital status. Another advantage is that earlier investigations on the study method (24-hr recall) employed in the 1965 study revealed no systematic biases in reported activities (Robinson, 1977). Robinson (1977) also noted that the time-diary method provides a "zero-sum" measure (i.e., since there are only 24 daily hours or 168 weekly hours, if time on one activity increases then time on another activity must decrease).

Juster et al. (1983) - 1975-1981 Time Use Longitudinal Panel Study - The Time Allocation longitudinal study of the U.S. population began as part of a multinational project with the first survey conducted in 1965-66. A second national time use survey was conducted in 1975-1976 and another in 1981 (Juster et al. 1983). Juster et al. (1983) provided study descriptions of the second and third surveys. The surveys included a probability sample of the adult population (18 years and older) and children between the ages of 3 and 17 years in the United States. In both surveys, time use was measured from 24-hour recall diaries administered to respondents and their spouses. The 1975-1976 survey involved four waves of interview: wave 1, October-November 1975; wave 2, February 1976; wave 3, May-June 1976; wave 4, September 1976. The first wave was a personal interview and the other three waves were telephone interviews. The 1975-1976 survey sample consisted of 2,300 individuals, and of that sample, 1,519 respondents. Four recall diaries (one from each wave of interviews) were obtained from 947 respondents, with data on time use measures for two weekdays, one Saturday and one Sunday. The survey was designed to gather information for: employment status; earnings and other income; "consumption benefits for activities of respondents and their spouses;" health, friendships and associations of the respondents; stock technology available to the household, house repair, and maintenance activities of the family; division of labor in household work and related attitudes; physical characteristics of the respondents housing structure, net worth and housing values; job characteristics; and characteristics of mass media usage on a typical day (Juster et al., 1983).

The 1981 survey was a follow-up of respondents and spouses who had completed at least three waves of interview in the 1975-1976 survey. For the 1981 survey, 920 individuals were eligible. The survey design was similar to the 1975-1976 survey, however in this survey, the adult population was 25 years and older and consisted of 620 respondents. Four waves of interviews were conducted between February - March 1981 (wave 1), May - June 1981 (wave 2), September 1981 (wave 3), and November - December (wave 4). The 1981 survey included the respondents' children between the ages of 3 and 17 years. The survey design for children provided information on time use measures from two time diary reports: one school day and one non-school day. In addition, information for academic achievement measures,



school and family life measures, and ratings from the children's teachers were gathered during the survey.

Juster et al. (1983) did not report the time use data obtained for the 1975-1976 survey or the 1981 survey. These data are stored in four tape files and can be obtained from the Inter-university Consortium for Political and Social Research (ICPSR) in Michigan. The response rate for the first wave of interview (1975-76 survey) based on the original sample population was 66 percent, and response rates for the subsequent waves ranged from 42 percent (wave 4) to 50 percent (wave 2). In the 1981 survey, the response rate based on eligible respondents was 67 percent for the first interview, and ranged from 54 percent (wave 4) to 60 percent (wave 2) in the subsequent interviews (Juster et al., 1983). The 1975-1976 survey included 87 activities. In the 1981 survey, these 87 activities were broken down into smaller components, resulting in 223 activities (Juster et al., 1983). The activity codes and descriptors used for the adult time diaries in both surveys are presented in Appendix Table 15A-3.

A limitation of this study is that the surveys were not designed for exposure assessment purposes. Therefore, the time use data set may be biased. Another limitation is that time use data collected were based on a 24-hour diary recall. This may somewhat bias the data set obtained from this survey. An advantage associated with this survey is that it provides a database of information on various human activities. This information can be used to assess various exposure pathways and scenarios associated with these activities. Also, some of the data from these surveys were used in the studies conducted by Timmer et al. (1985) and Hill (1985). In addition, the activity descriptor codes developed in these studies were used by Timmer et al. (1985), Hill (1985), and Robinson and Thomas (1991). These studies are presented in Sections 15.1.1 and 15.1.2. Another advantage of this survey is that the data are based on a national survey and conducted over a one year period, resulting in a seasonally balanced survey and one representative of the U.S. population.

Hill (1985) - Patterns of Time Use - Hill (1985) investigated the total amount of time American adults spend in one year performing various activities and the variation in time use across three different dimensions: demographic characteristics, geographical location, and seasonal characteristics. In this study, time estimates were based on data collected from time diaries in four waves (1 per season) of a survey conducted in the fall of 1975

through the fall of 1976 for the 1975-1976 Time Allocation Study. The sampling periods included two weekdays, one Saturday and one Sunday. The 1975-1976 Time Allocation Study provided information on the amount of time spent performing primary activities. The information gathered were responses to the survey question "What were you doing?" The survey also provided information on secondary activities (i.e., respondents performing more than one activity at the same time). Hill (1985) analyzed time estimates for 10 broad categories of activities based on data collected from 87 activities. These estimates included seasonal variation in time use patterns and comparisons of time use patterns for different days of the week. The 10 major categories and ranges of activity codes are listed in Appendix Table 15A-4. Hill (1985) collected data on time use for the major activity patterns in four different age groups (18-24, 25-44, 45-64, and 65 years and older). However, the time use data were summarized in graphs rather than in tables.

Analysis of the 1975-76 survey data revealed very small regional differences in time use among the broad activity patterns (Hill, 1985). The weighted mean hours per week spent performing the 10 major activity categories presented by region are shown in Table 15-153. In all regions, adults spent more time on personal care (included night sleep). Adults in the North Central region of the country spent more time on market work activities than adults in other regions of the country. Adults in the South spent more time on leisure activities (passive and active combined) than adults elsewhere (Table 15-153). Table 15-154 presents the time spent per day, by the day of the week for the 10 major activity categories. Time spent on the 87 activities (components of the 10 major categories) are presented in Appendix Table 15A-5. Adult time use was dominated in descending order by personal care (including sleep), market work, passive leisure, and house work. Collectively, these activities represent about 80 percent of available time (Hill, 1985).

According to Hill (1985), sleep was the single most dominant activity averaging about 56.3 hours per week. Television watching (passive leisure) averaged about 21.8 hours per week, and housework activities averaged about 14.7 hours per week. Weekdays were predominantly market-work oriented. Weekends (Saturday and Sunday) were predominantly devoted to household tasks ("sleeping in," socializing, and active leisure) (Hill, 1985). Table 15-155 presents the mean time spent performing these 10 groups of activities during each wave of interview (fall, winter, spring, and summer). Adjustments



were made to the data to assure equal distributions of weekdays, Saturdays, and Sundays (Hill, 1985). The data indicates that the time periods adults spent performing market work, child care, shopping, organizational activities, and active leisure were fairly constant throughout the year (Hill, 1985). The mean hours spent per week in performing the 10 major activity patterns are presented by gender in Table 15-156 (time use patterns for all 87 activities are presented in Appendix Table 15A-6). Table 15-156 indicates that time use patterns determined by data collected for the mid-1970's survey show gender differences. Men spent more time on activities related to labor market work and education, and women spent more time on household work activities.

A limitation associated with this study is that the time data were obtained from an old survey conducted in the mid-1970s. Because of fairly rapid changes in American society, applying these data to current exposure assessments may result in some biases. Another limitation is that time use data were not presented for children. An advantage of this study is that time diaries were kept and data were not based on recall. The former approach may result in a more accurate data set. Another advantage of this study is that the survey is seasonally balanced since it was conducted throughout the year and the data are from a large survey sample.

Sell (1989) - The Use of Children's Activity Patterns in the Development of a Strategy for Soil Sampling in West Central Phoenix - In a report prepared for the Arizona Department of Environmental Quality, Sell (1989) investigated the activity patterns of preschool and school age children in the west central portion of Phoenix known as Maryvale. The survey was conducted in two parts: (1) most of the school age children were interviewed personally from May through June, 1989 in three schools; and (2) survey questionnaires were mailed to parents of preschool children.

In the first survey, 15 percent of the total school population (2,008) was sampled with 111 children in grades K-6 participating (response rate of 37 percent). The surveyed population was 53.2 percent male and 46.8 percent female. Of this population, 41 percent were Hispanics, 49.5 percent Anglos, 7.2 percent Blacks, and 1.7 percent Asians. The children interviewed were between the ages of 5 and 13 years. Within each school, the children in grades K-6 were stratified into two groups, primary (grades K-3) and intermediate (grades 4-6), and children were selected randomly from each group. Children in grades K-2 were either interviewed in school

or at home in the presence of a parent or an adult care-provider. In the course of the interview, children were asked to identify locations of activity areas, social areas (i.e., places they went with friends), favorite areas, and locations of forts or clubhouses. Aerial photographs were used to mark these areas.

The second survey involved only preschool children. Parents completed questionnaires which provided information on the amount of time their children spent outdoors, outdoor play locations, favorite places, digging areas, use of park or playgrounds, and swimming or wading locations. This survey was conducted between June-July 1989. One thousand (1,000) parents were sampled, but only 211 questionnaires were usable out of 886 questionnaires received resulting in a response rate for the preschool's survey of about 24 percent. The sample population consisted of children 1 month and up to preschool age. Of this population, 53 percent were Anglos, 18 percent Hispanics, 2 percent Blacks, and 3 percent Asians.

The survey design considered the kinds of activities children engaged in, but not the amount of time children spent in each activity. Therefore, Sell (1989) presented the data obtained from the survey in terms of percent of respondents who engaged in specific activities or locations. A summary of percent responses of the preschool and school-age children's activities at various locations in the Maryvale study areas are presented in Table 15-157. Also included in this table is a ranking of children's play locations based on other existing research works. Based on the survey data, Sell (1989) reported that the median time preschool children spent outdoors on weekdays was 1-2 hours, and on weekends the median time spent outdoors was 2-5 hours. Most of these children played outside in their own yards, and some played in other people's yards or parks and playgrounds (Sell, 1989).

Limitations associated with this study are that the survey design did not report the time spent in various activities or locations and the response rates obtained from the surveys were low and, therefore, may result in biased data. In addition, because the survey was conducted in Arizona, the surveyed population does not represent the children's population on a national basis. Advantages of this study are that it provides data on various activities children engage in and locations of these activities, and provides for time spent outdoors. This information is useful in determining exposure pathways to toxic pollutants for children.



Tarshis (1981) - The Average American Book - Tarshis (1981) compiled a book addressing the habits, tastes, lifestyles, and attitudes of the American people in which he reported data on time spent in personal grooming. The data presented are gathered from small surveys, the Newspaper Advertising Bureau, and magazines. Tarshis reported frequency and percentage data by gender and age for grooming activities such as showering and bathing as follows:

- 90 percent take some sort of a bath in an average 24-hour period;
- 5 percent average more than 1 shower or bath a day;
- 75 percent of men shower, 25 percent take baths;
- 50 percent of women take showers, 50 percent take baths;
- 65 percent of teenage girls 16-19 shower daily;
- 55 percent of teenage girls take at least one bath a week;
- 50 percent of women use an additive in their bath every time they bathe;
- People are more likely to shower than bathe if they are young and have higher income; and
- Showering is more popular than bathing in large cities.

Limitations of this study are that the data are compiled from other sources, and that the data are old; it is possible that these data may not reflect the current trends of the general population. An advantage of the study is that it presents frequency data that are useful in exposure assessment, especially concerning volatilization of chemicals from water.

AIHC (1994) - Exposure Factors Sourcebook - The activity factors data presented in the Sourcebook are similar to that in this handbook. The AIHC Sourcebook uses tenure data from the Bureau of Labor Statistics (1987), while this handbook uses more recent data (Carey, 1988) and provides general and specific recommendations for various age groups. Distributions were derived using data presented in U.S. EPA (1989) version of this handbook, the Bureau of Labor Statistics (1987), and various other references. Distribution data and/or recommendations are presented for time in one residence, residential occupancy, time spent indoors/outdoors, hours at home/away from home for adults and children, hours at work for adults, working tenure, and shower duration. For each distribution, the @Risk formula is provided for

direct use in the @Risk software (Palisade, 1992). The Sourcebook has been classified as a relevant rather than a key study because it is not the primary source for the data used to make recommendations. It is a relevant source of alterative information.

15.2. OCCUPATIONAL MOBILITY

15.2.1. Background

The amount of time spent in different types of occupations may affect the duration and/or magnitude of exposures to contaminants specific to those occupations. For example, an individual who spends an entire lifetime as a farmer may experience a longer duration of exposure to certain contaminants, especially pesticides, than individuals who have indoor occupations. Also, individual exposures to specific chemicals in the work place may be significantly reduced when individuals change jobs. Work place exposures among women may be of shorter duration than among men because women's careers may be interrupted by home and family responsibilities. The key studies presented in the following section provide occupational tenure for workers grouped by age, race, gender, and employment status.

15.2.2. Key Occupational Mobility Studies

Carey (1988) - Occupational Tenure in 1987: Many Workers Have Remained in Their Fields - Carey (1988) presented median occupational and employer tenure for different age groups, gender, earnings, ethnicity, and educational attainment. Occupational tenure was defined as "the cumulative number of years a person worked in his or her current occupation, regardless of number of employers, interruptions in employment, or time spent in other occupations" (Carey, 1988). The information presented was obtained from supplemental data to the January 1987 Current Population Study, a U.S. Bureau of the Census publication. Carey (1988) did not present information on the survey design.

The median occupational tenure by age and gender, ethnicity, and employment status are presented in Tables 15-158, 15-159, and 15-160, respectively. The median occupational tenure of the working population (109.1 million people) 16 years of age and older in January of 1987, was 6.6 years (Table 15-158). Table 15-158 also shows that median occupational tenure increased from 1.9 years for workers 16-24 years old to 21.9 years for workers 70 years and older. The median occupational tenure for men 16 years and older was higher (7.9 years) than for women of the same age group (5.4 years). Table



15-159 indicates that whites had longer occupational tenure (6.7 years) than blacks (5.8 years), and Hispanics (4.5 years). Full-time workers had more occupational tenure than part-time workers 7.2 years and 3.1 years, respectively (Table 15-160).

Table 15-161 presents the median occupational tenure among major occupational groups. The median tenure ranged from 4.1 years for service workers to 10.4 years for people employed in farming, forestry, and fishing. In addition, median occupational tenure among detailed occupations ranged from 24.8 years for barbers to 1.5 years for food counter and fountain workers (Appendix Table 15A-7).

The strength of an individual's attachment to a specific occupation has been attributed to the individual's investment in education (Carey, 1988). Carey (1988) reported the median occupational tenure for the surveyed working population by age and educational level. Workers with 5 or more years of college had the highest median occupational tenure of 10.1 years. Workers that were 65 years and older with 5 or more years of college had the highest occupational tenure level of 33.8 years. The median occupational tenure was 10.6 years for self-employed workers and 6.2 years for wage and salary workers (Carey, 1988).

A limitation associated with this study is that the survey design employed in the data collection was not presented. Therefore, the validity and accuracy of the data set cannot be determined. Another limitation is that only median values were reported in the study. An advantage of this study is that occupational tenure (years spent in a specific occupation) was obtained for various age groups by gender, ethnicity, employment status, and educational level. Another advantage of this study is that the data were based on a survey population which appears to represent the general U.S. population.

Carey (1990) - Occupational Tenure, Employer Tenure, and Occupational Mobility - Carey (1990) conducted another study that was similar in scope to the study of Carey (1988). The January 1987 Current Population Study (CPS) was used. This study provided data on occupational mobility and employer tenure in addition to occupational tenure. Occupational tenure was defined in Carey (1988) as the "the cumulative number of years a person worked in his or her current occupation, regardless of number of employees, interruptions in employment, or time spent in other locations." Employer tenure was defined as "the length of time a worker has been with the same employer," while occupational

mobility was defined as "the number of workers who change from one occupation to another" (Carey, 1990). Occupational mobility was measured by asking individuals who were employed in both January 1986 and January 1987 if they were doing the same kind of work in each of these months (Carey, 1990). Carey (1990) further analyzed the occupational mobility data and obtained information on entry and exit rates for occupations. These rates were defined as "the percentage of persons employed in an occupation who had voluntarily entered it from another occupation" and an exit rate was defined as "the percentage of persons employed in an occupation who had voluntarily left for a new occupation" (Carey, 1990).

Table 15-162 shows the voluntary occupational mobility rates in January 1987 for workers 16 years and older. For all workers, the overall voluntary occupational mobility rate was 5.3 percent. These data also show that younger workers left occupations at a higher rate than older workers. Carey (1990) reported that 10 million of the 100.1 million individuals employed in January 1986 and in January 1987 had changed occupations during that period, resulting in an overall mobility rate of 9.9 percent. Executive, administrative, and managerial occupations had the highest entry rate of 5.3 percent, followed by administrative support (including clerical) at 4.9 percent. Sales had the highest exit rate of 5.3 percent and service had the second highest exit rate of 4.8 percent (Carey, 1990). In January 1987, the median employer tenure for all workers was 4.2 years. The median employee tenure was 12.4 years for those workers that were 65 years of age and older (Carey, 1990).

Because the study was conducted by Carey (1990) in a manner similar to that of the previous study (Carey, 1988), the same advantages and disadvantages associated with Carey (1988) also apply to this data set.

15.3. POPULATION MOBILITY

15.3.1. Background

An assessment of population mobility can assist in determining the length of time a household is exposed in a particular location. For example, the duration of exposure to site-specific contamination, such as a polluted stream from which a family fishes or contaminated soil on which children play or vegetables are grown, will be directly related to the period of time residents live near the contaminated site.

Information regarding population mobility is compiled and published by the U.S. Bureau of the Census (BOC). Banks, insurance companies, credit card



companies, real estate and housing associations use residence history information. However, usually this information is confidential. Information compiled by the BOC provides information about population mobility; however, it is difficult to determine the average residence time of a homeowner or apartment dweller from this information. Census data provide representations of a cross-section of the population at specific points in time, but the surveys are not designed to follow individual families through time. The most current BOC information about annual geographical mobility and mobility by State is summarized in Appendix 15B. Figure 15-1 graphically displays the distribution of movers by type of move.

Available information was provided by the Oxford Development Corporation, the National Association of Realtors (NAR), and the BOC. According to Oxford Development Corporation, a property management firm, the typical residence time for an apartment dweller for their corporation has been estimated to range from 18 to 30 months (S. Cameron Hendricks, Sales Department, Oxford Development Corporation, Gaithersburg, MD, personal communication with P. Wood (Versar) August 10, 1992).

15.3.2. Key Population Mobility Studies

Israeli and Nelson (1992) - Distribution and Expected Time of Residence for U.S. Households - In risk assessments, the average current residence time (time since moving into current residence) has often been used as a substitute for the average total residence time (time between moving into and out of a residence) (Israeli and Nelson, 1992). Israeli and Nelson (1992) have estimated distributions of expected time of residence for U.S. households. Distributions and averages for both current and total residence times were calculated for several housing categories using the 1985 and 1987 BOC housing survey data. The total residence time distribution was estimated from current residence time data by modeling the moving process (Israeli and Nelson, 1992). Israeli and Nelson (1992) estimated the average total residence time for a household to be approximately 4.6 years or 1/6 of the expected life span (see Table 15-163). The maximal total residence time that a given fraction of households will live in the same residence is presented in Table 15-164. For example, only 5 percent of the individuals in the "All Households" category will live in the same residence for 23 years and 95 percent will move in less than 23 years.

The authors note that the data presented are for the expected time a household will stay in the same residence. The data do not predict the expected residence time for each member of the household, which is generally expected to be smaller (Israeli and Nelson, 1992). These values are more realistic estimates for the individual total residence time, than the average time a household has been living at its current residence. The expected total residence time for a household is consistently less than the average current residence time. This is the result of greater weighting of short residence time when calculating the average total residence time than when calculating the average current residence time (Israeli and Nelson, 1992). When averaging total residence over a time interval, frequent movers may appear several times, but when averaging current residence times, each household appears only once (Israeli and Nelson, 1992). According to Israeli and Nelson (1992), the residence time distribution developed by the model is skewed and the median values are considerably less than the means (T), which are less than the average current residence times.

U.S. Bureau of the Census (1993) - American Housing Survey for the United States in 1991 - This survey is a national sample of 55,000 interviews in which collected data were presented owners, renters, Black householders, and Hispanic householders. The data reflect the number of years a unit has been occupied and represent all occupied housing units that the residents' rented or owned at the time of the survey.

The results of the survey pertaining to residence time of owner/renter occupied units in the U.S. are presented in Table 15-165. Using the data in Table 15-165, the percentages of householders living in houses for specified time ranges were determined and are presented in Table 15-166. Based on the BOC data in Table 15-165, the 50th percentile and the 90th percentile values were calculated for the number of years lived in the householder's current house. These values were calculated by apportioning the total sample size (93,147 households) to the indicated percentile associated with the applicable range of years lived in the current home. Assuming an even distribution within the appropriate range, the 50th and 90th percentile values for years living in current home were determined to be 9.1 and 32.7 years, respectively. These were then rounded to 9 and 33 years. Based on the above data, the range of 9 to 33 years is assumed to best represent a central tendency estimate of length of residence and upper percentile estimate of residence time, respectively.

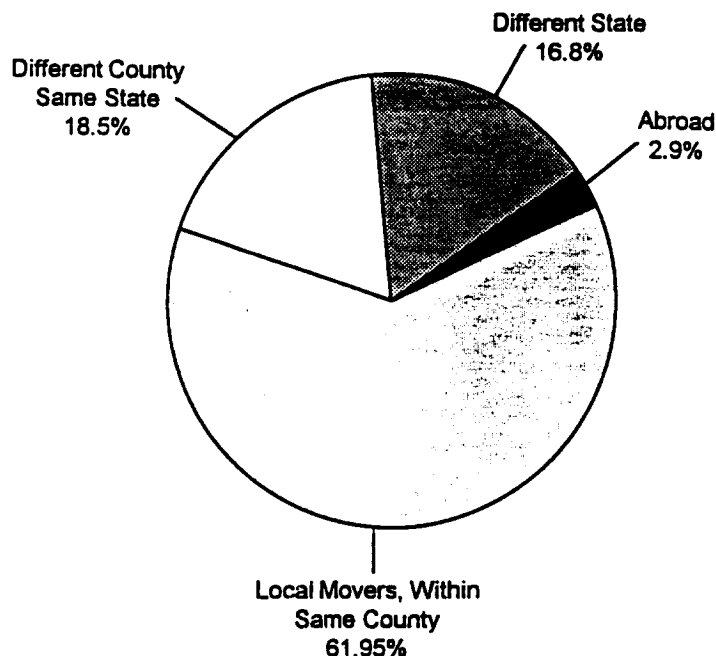


Figure 15-1. Distribution of Individuals Moving by Type of Move: 1991-92.

Source: U.S Bureau of the Census, 1993

A limitation associated with the above analysis is the assumption that there is an even distribution within the different ranges. As a result, the 50th and 90th percentile values may be biased.

Johnson and Capel (1992) - A Monte Carlo Approach to Simulating Residential Occupancy Periods and Its Application to the General U.S. Population - Johnson and Capel developed a methodology to estimate the distribution of the residential occupancy period (ROP) in the national population. ROP denotes the time (years) between a person moving into a residence and the time the person moves out or dies. The methodology used a Monte Carlo approach to simulate a distribution of ROP for 500,000 persons using data on population, mobility, and mortality.

The methodology consisted of six steps. The first step defined the population of interest and categorized them by location, gender, age, sex, and race. Next the demographic groups were selected and the fraction of the specified population that fell into each group was developed using U.S. BOC data. A mobility table was

developed based on census data, which provided the probability that a person with specified demographics did not move during the previous year. The fifth step used data on vital statistics published by the National Center for Health Statistics and developed a mortality table which provided the probability that individuals with specific demographic characteristics would die during the upcoming year. As a final step, a computer based algorithm was used to apply a Monte Carlo approach to a series of persons selected at random from the population being analyzed.

Table 15-167 presents the results for residential occupancy periods for the total population, by gender. The estimated mean ROP for the total population was 11.7 years. The distribution was skewed (Johnson and Capel, 1992): the 25th, 50th, and 75th percentiles were 4, 9, and 16 years, respectively. The 90th, 95th, and 99th percentiles were 26, 33, and 47 years, respectively. The mean ROP was 11.1 years for males and 12.3 years for females, and the median value was 8 years for males and 9 years for females.



Descriptive statistics for subgroups defined by current ages were also calculated. These data, presented by gender, are shown in Table 15-168. The mean ROP increases from age 3 to age 12 and there is a noticeable decrease at age 24. However, there is a steady increase from age 24 through age 81.

There are a few biases within this methodology that have been noted by the authors. The probability of not moving is estimated as a function only of gender and age. The Monte Carlo process assumes that this probability is independent of (1) the calendar year to which it is applied, and (2) the past history of the person being simulated. These assumptions, according to Johnson and Capel (1992), are not entirely correct. They believe that extreme values are a function of sample size and will, for the most part, increase as the number of simulated persons increases.

15.3.3. Relevant Population Mobility Studies

National Association of Realtors (NAR) (1993) The Home Buying and Selling Process - The NAR survey was conducted by mailing a questionnaire to 15,000 home buyers throughout the U.S. who purchased homes during the second half of 1993. The survey was conducted in December 1993 and 1,763 usable responses were received, equaling a response rate of 12 percent (NAR, 1993). Of the respondents, forty-one percent were first time buyers. Home buyer names and addresses were obtained from Dataman Information Services (DIS). DIS compiles information on residential real estate transactions from more than 600 counties throughout the United States using courthouse deed records. Most of the 250 Metropolitan Statistical Areas are also covered in the DIS data compilation.

The home buyers were questioned on the length of time they owned their previous home. Typical homebuyer (41%) was found to have lived in their previous home between 4 and 7 years (Table 15-169). The survey results indicate that the average tenure of home buyers is 7.1 years based on an overall residence history of the respondents (NAR, 1993). In addition, the median length of residence in respondents' previous homes was found to be 6 years (see Table 15-170).

The distances the respondents moved to their new homes were typically short distances. Data presented in Table 15-171 indicate that the mean distances range from 230 miles for new home buyers and repeat buyers to 8 years for first time buyers and existing home buyers. Seventeen (17) percent of respondents purchased homes

over 100 miles from their previous homes and 49 percent purchased homes less than 10 miles away.

Lehman (1994) - Homeowners Relocating at Faster Pace - Lehman (1994) presents data gathered by the Chicago Title and Trust Family Insurers. The data indicate that, in 1993, average U.S. homeowners moved every 12 years. In 1992, homeowners moved every 13.4 years and in 1991, every 14.3 years. Data from the U.S. Bureau of the Census indicate that 7 percent of the owner population moved in 1991. Based on this information, Lehman has concluded that it would take 12 years for 100 percent of owners to move. According to Lehman, Bill Harriett of the U.S. Bureau of the Census has been said that 14 years is a closer estimate for the time required for 100 percent of home owners to move. An advantage of this study is that it provides percentile data for the residential occupancy period.

15.4. RECOMMENDATIONS

Assessors are commonly interested in a number of specific types of time use data including time/frequencies for bathing, showering, gardening, residence time, indoor versus outdoor time, swimming, occupational tenure, and population mobility. Recommendations for each of these are discussed below. The confidence recommendations for activity patterns is presented in Table 15-172.

15.4.1. Recommendations for Activity Patterns

Following are recommendations for selected activities known to increase an individual's exposure to certain chemicals. These activities are time spent indoors versus outdoors and gardening, bathing and showering, swimming, residential time spent indoors and outdoors, and traveling inside a vehicle.

Time Spent Indoors Versus Outdoors and Gardening - Assessors often require knowledge of time individuals spend indoors versus outdoors. Ideally, this issue would be addressed on a site-specific basis since the times are likely to vary considerably depending on the climate, residential setting (i.e., rural versus urban), personal traits (i.e., age, health) and personal habits. The following general recommendation is offered in the absence of site-specific information. The key study by Robinson and Thomas (1991) compares the time use values derived in the CARB and National Studies; data are presented only for persons 12 years and older. The time use values did not differ significantly between the two studies and were averaged to provide the following recommended values. These values are applicable to



individuals 12 years and older. Approximately 21 hrs/day are spent indoors; 1.5 hrs/day are spent outdoors, and 1.5 hrs/day are spent in a vehicle.

Activities can vary significantly with differences in age. Special attention should be given to the activities of populations under the age of 12 years. Timmer et al. (1985) presented data on time spent in various activities for boys and girls ages 3-11 years. The study focused on activities performed indoors such as household work, personal care, eating, sleeping, school, studying, attending church, watching television, and engaging in household conversations. The average times spent in each indoor activity (and half the times spent in each activity which could have occurred indoors or outdoors) were summed. This procedure resulted in the following recommendations:

- Indoor activities accounted for about 78 percent of the total time in weekdays and 70 percent total time in weekend days. The corresponding times spent indoors are 19 hrs/day for weekdays and 17 hrs/day on weekends.
- Outdoor activities accounted for about 22 percent of children's time during weekdays and 30 percent during the weekend. The corresponding times spent outdoors are 5 hrs/day for weekdays and 7 hrs/day on weekends.

Assessors evaluating soil exposures are commonly interested in data on gardening times and frequencies. No data specific to time spent gardening could be found; thus, no firm recommendation could be made. However, three sets of data were found which indirectly relate to this issue which the assessor can consider in deriving time estimates for gardening:

- Robinson and Thomas (1991) estimated the time spent in "other outdoor activities" (Table 15-8) as 1 hr/day. These data apply to populations 12 years and older.
- Hill (1985) estimated that time spent in "house work and/or yard work" (Table 15-153) as 2 hr/day. These data apply to adult populations.
- Tsang and Klepeis (1996) estimated that time spent in the garden or other circumstances working with soil for persons 18-64 years old

(Table 15-62) for the 90th, 95th, and 99th percentile at 16, 40, and 200 hours/month, respectively.

U.S. EPA's Dermal Exposure Assessment Document (1992) recommends, on the basis of judgement, an event frequency for the adult gardener, working outside: 1 to 2 events/week during warmer months or about 40 events/year. An upper percentile value of 40 hours/month is recommended based on Tsang and Klepeis (1996)

Baths and Showers - In the NHAPS study, 649 (~7 percent) of the total participants indicated either taking or giving at least one bath in a day. Those 649 respondents were subsequently asked the number of times they took or gave a bath in one day. The majority, 459 of 649 respondents, recorded taking or giving one bath in a day. These results are presented in Table 15-24. The recommended bathing duration is 20 minutes. This is a 50th percentile value based on the NHAPS distribution shown on Table 15-26; the reported 90th percentile value is 45 minutes.

The recommended shower frequency of one shower per day is based on the NHAPS data summarized in Table 15-19. This table showed that 3,594 of the 9,386 total participants indicated taking at least one shower the previous day. When asked the number of actual showers taken the previous day, the reported results ranged from one to ten showers; a majority (76 percent), of those 3,549 respondents, reported taking one shower the previous day. The NHAPS data shown on Table 15-19, Table 15-24, and Table 15-26 provide information grouped according to gender, age, race, employment, education, day of the week, seasonal conditions, and health conditions such as asthma, angina, and bronchitis/emphysema.

Recommendations for showering duration are based on the key study conducted by Tsang and Klepeis (1996). A recommended value for average showering time is 10 minutes (Table 15-20) based on professional judgement. This approximates the average showering value (8 minutes) of James and Knuiman (1987) (Table 15-18). The recommended 50th percentile value is 15 minutes, and the 95th percentile value is 35 minutes (Table 15-21). Although these values are slightly higher than those of James and Knuiman (1987), they are believed to be more representative of U.S. households.

Swimming Data for swimming frequency is taken from the NHAPS Study (Tsang and Klepeis, 1996). Of 9,386 participants, 653 (about 7 percent), answered yes to



the question “in the past month, did you swim in a freshwater pool?”. The results to this question are summarized in Table 15-65. The recorded number of times respondents swam in the past month ranged from 1 to 60 with the greatest number of respondents, 147 (23 percent), reporting they swam one time per month. Thus, the recommended swimming frequency is one event/ month for the general population. The recommended swimming duration, 60 minutes per swimming event, is based on the NHAPS distribution shown on Table 15-67. Sixty minutes is based on the 50th percentile value; the 90th percentile value is 180 minutes per swimming event (based on one event/month); and the 99th percentile value is 181 minutes. This value (181) indicates that more than 180 minutes were spent.

In addition, users can obtain frequency and duration data grouped according to gender, age, race, employment, education, day of the week, and season. Frequency and duration data is also available in Table 15-65 and Table 15-67, for swimmer respondents reporting health conditions such as asthma, angina, and bronchitis/ emphysema.

Residential Time Spent Indoors and Outdoors - The recommendations for time spent indoors at one’s residence is 16.4 hours/day. This is based on the NHAPS data summarized in Table 15-131 which records the 50th percentile value of 985.0 minutes per day (16.4 hours/day); and a 90th percentile value of 1,395 minutes per day (23.3 hours/day).

The recommended value for time spent outdoors at one’s residence is 2 hours per day based on Table 15-102 (generated by the NHAPS data). Values of 105 minutes per day for the 50th percentile and 362 minutes per day for the 90th percentile are shown in Table 15-102.

Traveling Inside a Vehicle - The recommendation for time spent in a vehicle is 1 hour and 20 minutes per day. This recommendation is based on two studies and (1) Robinson and Thomas (1991) and (2) The NHAPS data. The Robinson and Thomas study evaluated two independent studies, the CARB and the National Study. They respectively reported mean durations for time spent in a vehicle as 98 and 87 minutes per day which averages to 92 minutes per day or about 1.5 hours per day. The NHAPS data, as summarized on Table 15-133, provide a 50th percentile value of 70 minutes per day (or 1 hour and 10 minutes) and a 90th percentile value of 190 minutes per day. Thus, the averaged value from these two studies is about 1 hour and 20 minutes. NHAPS data is grouped according to gender, race, age, employment status, census

region, day of the week, season, and health condition of respondents.

15.4.2. Recommendations: Occupational Mobility

The median occupational tenure of the working population (109.1 million people) ages 16 years of age and older in January 1987 was 6.6 years (Carey, 1988). Since the occupational tenure varies significantly according to age it is recommended to use the age dependent values presented in Carey’s 1988 study (Table 15-158). When age cannot be determined, it is recommended to use the median tenure value of 6.6 years for working men and women 16 years and older. For persons 70 years and older, a tenure value of 21.9 years is recommended for a working lifetime. A value of 30.5 years and 18.8 years is recommended for men and women, respectively. Part-time employment, race and the position held are important to consider in determining occupational tenure. The ratings indicating confidence in the occupational mobility recommendations are presented in Table 15-173. It should be noted that the recommended values are not for use in evaluating job tenure. These data can be used for determining time spent in an occupation and not for time spent at a specific job site.

15.4.3. Recommendations: Population Mobility

There are three key studies from which the population mobility recommendations were derived: Israeli and Nelson (1992), U.S. Bureau of the Census (1993) - and Johnson and Capel (1992). Each study used a unique approach to estimate the length of time a person resides in a household. The respective approaches were to (1) average current and total residence time; (2) model current residence time; and (3) determine the residential occupancy period. A summary of the approaches used and values recommended by each of these studies is presented in Table 15-174.

The three studies provide residence time estimates that are very similar to the 9 year (50th percentile) and 30 year (95th percentile). Tables 15-163 and 15-164 show residence times for different types of residences and are recommended where assessors are interested in specific types of residences. The ratings indicating confidence in the population mobility recommendations is presented in Table 15-175.



15.4.4. Summary of Recommended Activity Factors

Table 15-176 includes a summation of the recommended activity pattern factors presented in this section and the studies which provided data on the specific activities. The type of activities include indoor activities, outdoor activities, time inside a vehicle, taking a bath or shower, swimming, working at a specific occupation, and residing in a particular location.

15.5. REFERENCES FOR CHAPTER 15

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Table 15-1. Time Use Table Locator Guide

Percentile	Basis	Population	Application	Study	Table
Averages	Activity	Children 3-17 yrs	National	Timmer et al., 1985	15-2
Distribution	Activity	Children and Teens	National	Timmer et al., 1985	15-3
Distribution	Showering	Adults	Foreign-Australia	James and Knuiman, 1987 Tsang and Klepeis, 1996	15-4 15-24
Averages	Activity	Adults 18-64 yrs	National	Robinson and Thomas, 1991	15-5
Averages	Activity	Adults 18-64 yrs	Regional-CA	Robinson and Thomas, 1991	15-5
Averages	Microenvironment	Adults 18-64 yrs	National/Regional-CA	Robinson and Thomas, 1991	15-6
Averages	Microenvironment	Children and Adult	Regional-California	Robinson and Thomas, 1991	15-7 to 15-10
Averages	Microenvironment	Children and Adults	National	Robinson and Thomas, 1991	15-7 to 15-10
Averages	Activity	Infants and Children	Regional-California	Wiley et al., 1991	15-11
Distribution	Activity	Infants and Children	Regional-California	Wiley et al., 1991	15-12
Averages	Activity by season	Infants and Children	Regional-California	Wiley et al., 1991	15-13
Averages	Microenvironment	Infants and Children	Regional-California	Wiley et al., 1991	15-14
Distribution	Microenvironment	Infant and Children	Regional-California	Wiley et al., 1991	15-15
Averages	Microenvironment by season	Infants and Children	Regional-California	Wiley et al., 1991	15-16
Distribution	Microenvironment near pollutant	Infant and Children	Regional-California	Wiley et al., 1991	15-17
Averages	Bathing and swimming	Adults	Regional-National	USEPA, 1992 Tsang and Klepeis, 1996	15-18 15-22, 15-63
Average	Activity by employment	Adults	National	Robinson, 1977	15-147
Averages	Occupational Tenure by race and gender	Teens and Adults	National	Carey, 1988	15-157
Averages	Occupational Tenure by employment and gender	Teens and Adults	National	Carey, 1988	15-158
Distribution	Occupational Tenure by employment	Teens and Adults	National	Carey, 1988	15-159
Distribution	Occupational Mobility by age	Teens and Adults	National	Carey, 1990	15-160
Distribution	Population Mobility by locale	All ages	National	Census, 1993	Figure 15-1
Averages	Residence Time by region, setting	All ages	National	Israeli and Nelson, 1992	15-161
Distribution	Residence Time by region, setting	All ages	National	Israeli and Nelson, 1992	15-162
Distribution	Residence Time by year moved in	All ages	National	Census, 1993	15-163
Distribution	Residence Time by years in current home	All ages	National	Census, 1993	15-164
Distribution	Residence Time by gender	All ages	National	Johnson and Capel, 1992	15-165
Distribution	Residence Time by age	All ages	National	Johnson and Capel, 1992	15-166
Distribution	Residence Time by years in previous house	All ages	National	NAR, 1993	15-167
Distribution	Residence Time by tenure in previous home	All ages	National	NAR, 1993	15-168
Distribution	Relocation Distance	All ages	National	NAR, 1993	15-169



Table 15-2. Mean Time Spent (minutes) Performing Major Activities Grouped by Age, Sex and Type of Day								
Activity	Age (3-11 years)				Age (12-17 years)			
	Duration of Time (mins/day)				Duration of Time (mins/day)			
	Weekdays		Weekends		Weekdays		Weekends	
	Boys (n=118)	Girls (n=111)	Boys (n=118)	Girls (n=111)	Boys (n=77)	Girls (n=83)	Boys (n=77)	Girls (n=83)
Market Work	16	0	7	4	23	21	58	25
Household Work	17	21	32	43	16	40	46	89
Personal Care	43	44	42	50	48	71	35	76
Eating	81	78	78	84	73	65	58	75
Sleeping	584	590	625	619	504	478	550	612
School	252	259	--	--	314	342	--	--
Studying	14	19	4	9	29	37	25	25
Church	7	4	53	61	3	7	40	36
Visiting	16	9	23	37	17	25	46	53
Sports	25	12	33	23	52	37	65	26
Outdoors	10	7	30	23	10	10	36	19
Hobbies	3	1	3	4	7	4	4	7
Art Activities	4	4	4	4	12	6	11	9
Playing	137	115	177	166	37	13	35	24
TV	117	128	181	122	143	108	187	140
Reading	9	7	12	10	10	13	12	19
Household Conversations	10	11	14	9	21	30	24	30
Other Passive Leisure	9	14	16	17	21	14	43	33
NA ^a	22	25	20	29	14	17	10	4
Percent of Time Accounted for by Activities Above	94%	92%	93%	89%	93%	92%	88%	89%
a NA = Unknown								
Source: Timmer et al., 1985.								



Table 15-3. Mean Time Spent (minutes) in Major Activities Grouped by Type of Day for Five Different Age Groups											
Age (years)	Time Duration (mins)										Significant Effects ^a
	Weekday					Weekend					
	3-5	6-8	9-11	12-14	15-17	3-5	6-8	9-11	12-14	15-17	
<u>Activities</u>											
Market Work	--	14	8	14	28	--	4	10	29	48	
Personal Care	41	49	40	56	60	47	45	44	60	51	A,S,AxS (F>M)
Household Work	14	15	18	27	34	17	27	51	72	60	A,S, AxS (F>M)
Eating	82	81	73	69	67	81	80	78	68	65	A
Sleeping	630	595	548	473	499	634	641	596	604	562	A
School	137	292	315	344	314	--	--	--	--	--	
Studying	2	8	29	33	33	1	2	12	15	30	A
Church	4	9	9	9	3	55	56	53	32	37	A
Visiting	14	15	10	21	20	10	8	13	22	56	A (Weekend only)
Sports	5	24	21	40	46	3	30	42	51	37	A,S (M>F)
Outdoor activities	4	9	8	7	11	8	23	39	25	26	
Hobbies	0	2	2	4	6	1	5	3	8	3	
Art Activities	5	4	3	3	12	4	4	4	7	10	
Other Passive Leisure	9	1	2	6	4	6	10	7	10	18	A
Playing	218	111	65	31	14	267	180	92	35	21	A,S (M>F)
TV	111	99	146	142	108	122	136	185	169	157	A,S, AxS (M>F)
Reading	5	5	9	10	12	4	9	10	10	18	A
Being read to	2	2	0	0	0	3	2	0	0	0	A
NA	30	14	23	25	7	52	7	14	4	9	A
a Effects are significant for weekdays and weekends, unless otherwise specified A = age effect, P<0.05, for both weekdays and weekend activities; S = sex effect P<0.05, F>M, M>F = females spend more time than males, or vice versa; and AxS = age by sex interaction, P<0.05.											
Source: Timmer et al., 1985											



Table 15-4. Cumulative Frequency Distribution of Average
Shower Duration for 2,550 Households

Shower duration (minutes)	Cumulative frequency (percentage)
1	0.2
2	0.8
3	3.1
4	9.6
5	22.1
6	37.5
7	51.6
8	62.5
9	72.0
10	79.4
11	84.5
12	88.4
13	90.6
14	92.3
15	93.7
16	94.9
17	95.7
18	96.7
19	97.6
20	98.0
<20	100.0

Source: Adapted from James and Knuiman, 1987.



Table 15-5. Mean Time Spent (minutes/day) in Ten Major Activity Categories Grouped by Total Sample and Gender for the CARB and National Studies (age 18-64 years)							
Activity Category ^a	Activity Codes ^b	Time Duration (mins/day)					
		CARB (1987-88)	National (1985)	CARB (1987-88)	National (1985)		
		Total Sample n ^c = 1,359	Men n = 1,980	Men n = 639	Women n = 720	Men n = 921	Women n = 1,059
Paid Work	00-09	273	252	346	200	323	190
Household Work	10-19	102	118	68	137	79	155
Child Care	20-29	23	25	12	36	11	43
Obtaining Goods and Services	30-39	61	55	48	73	44	62
Personal Needs and Care	40-49	642	642	630	655	636	645
Education and Training	50-59	22	19	25	20	21	16
Organizational Activities	60-69	12	17	11	13	12	20
Entertainment/Social Activities	70-79	60	62	57	55	64	62
Recreation	80-89	43	50	53	31	69	43
Communication	90-99	202	196	192	214	197	194
a,b Time use for components of activity categories and codes are shown in Appendix Table 15A-6.							
c n = total diary days.							
Source: Robinson and Thomas, 1991							

Table 15-6. Total Mean Time Spent at Three Major Locations Grouped by Total Sample and Gender for the CARB and National Study (ages 18-64 years)							
Location ^a	Code ^b	CARB (1987-88)	National (1985)	CARB (1987-88)	National (1985)		
		Total Sample	Men	Women	Men	Women	
		n ^c = 1359	n ^c = 1980	n ^c = 39	n ^c = 720	n ^c = 921	n ^c = 1059
At Home	WC01-13	892	954	822	963	886	1022
Away From Home	WC21-40	430	384	487	371	445	324
Travel	WC51-61	116	94	130	102	101	87
Not Ascertained	WC99	2	8	1	4	8	7
Total Time		1440	1440	1440	1440	1440	1440
a,b Time use data for the 44 components of location and location codes are presented in Appendix Table 15A-7.							
c n = total diary days.							
Source: Robinson and Thomas, 1991.							



Table 15-7. Mean Time Spent at Three Locations for both CARB and National Studies (ages 12 years and older)				
Location Category	Mean duration (mins/day)			
	CARB (n = 1762) ^b	S.E. ^a	National (n = 2762) ^b	S.E.
Indoor	1255 ^c	28	1279 ^c	21
Outdoor	86 ^d	5	74 ^d	4
In-Vehicle	98 ^d	4	87 ^d	2
Total Time Spent	1440		1440	
^a S.E. = Standard Error of Mean ^b Weighted Number - National sample population was weighted to obtain a ratio of 46.5 males and 53.5 females, in equal proportion for each day of the week, and for each quarter of the year. ^c Difference between the mean values for the CARB and national studies is not statistically significant. ^d Difference between the mean values for the CARB and national studies is statistically significant at the 0.05 level. Source: Robinson and Thomas, 1991.				



Table 15-8. Mean Time Spent (minutes/day) in Various Microenvironments Grouped by Total Population and Gender (12 years and over) in the National and CARB Data

Microenvironment	National Data Mean Duration (mins/day) (standard error) ^a					
	N = 1284 ^b	"Doer" ^c	N = 1478 ^b	"Doer"	N = 2762 ^b	"Doer"
	Men	Men	Women	Women	Total	Total
Autoplaces	5 (1)	90	1 (0)	35	3 (0)	66
Restaurant/bar	22 (2)	73	20 (2)	79	21 (1)	77
In-vehicle	92 (3)	99	82 (3)	94	87 (2)	97
In-Vehicle/other	1 (1)	166	1 (0)	69	1 (0)	91
Physical/outdoors	24 (3)	139	11 (2)	101	17 (2)	135
Physical/indoors	11 (1)	84	6 (1)	57	8 (1)	74
Work/study-residence	17 (2)	153	15 (2)	150	16 (1)	142
Work/study-other	221 (10)	429	142 (7)	384	179 (6)	390
Cooking	14 (1)	35	52 (2)	67	34 (1)	57
Other activities/kitchen	54 (3)	69	90 (4)	102	73 (2)	88
Chores/child	88 (3)	89	153 (5)	154	123 (3)	124
Shop/errand	23 (2)	56	38 (2)	74	31 (1)	67
Other/outdoors	70 (6)	131	43 (4)	97	56 (4)	120
Social/cultural	71 (4)	118	75 (4)	110	73 (3)	118
Leisure-eat/indoors	235 (8)	241	215 (7)	224	224 (5)	232
Sleep/indoors	491 (14)	492	496 (11)	497	494 (9)	495
Microenvironment	CARB Data Mean Duration (mins/day) (standard error) ^a					
	N = 867 ^b	"Doer" ^c	N = 895 ^b	"Doer"	N = 1762 ^b	"Doer"
	Men	Men	Women	Women	Total	Total
Autoplaces	31 (8)	142	9 (2)	50	20 (4)	108
Restaurant/bar	45 (4)	106	28 (3)	86	36 (3)	102
In-vehicle	105 (7)	119	85 (4)	100	95 (4)	111
In-Vehicle/other	4 (1)	79	3 (2)	106	3 (1)	94
Physical/outdoors	25 (3)	131	8 (1)	86	17 (2)	107
Physical/indoors	8 (1)	63	5 (1)	70	7 (1)	68
Work/study-residence	14 (3)	126	11 (2)	120	13 (2)	131
Work/study-other	213 (14)	398	156 (11)	383	184 (9)	450
Cooking	12 (1)	43	42 (2)	65	27 (1)	55
Other activities/kitchen	38 (3)	65	60 (4)	82	49 (2)	74
Chores/child	66 (4)	75	134 (6)	140	100 (4)	109
Shop/errand	21 (3)	61	41 (3)	78	31 (2)	70
Other/outdoors	95 (9)	153	44 (4)	82	69 (5)	117
Social/cultural	47 (4)	112	59 (5)	114	53 (3)	112
Leisure-eat/indoors	223 (10)	240	251 (10)	263	237 (7)	250
Sleep/indoors	492 (17)	499	504 (15)	506	498 (12)	501
^a Standard error of the mean ^b Weighted number ^c Doer = Respondents who reported participating in each activity/location spent in microenvironments. Source: Robinson and Thomas, 1991.						



Table 15-9. Mean Time Spent (minutes/day) in Various Microenvironments by Type of Day for the California and National Surveys (sample population ages 12 years and older)

Weekday Microenvironment	Mean Duration (standard error) ^a (mins/day)		Mean Duration for "Doer" ^b (mins/day)	
	CARB (n=1259) ^c	NAT (n=1973) ^c	CARB	NAT
1 Autoplaces	21 (5)	3 (1)	108	73
2 Restaurant/Bar	29 (3)	20 (2)	83	73
3 In-Vehicle/Internal Combustion	90 (5)	85 (2)	104	95
4 In-Vehicle/Other	3 (1)	1 (0)	71	116
5 Physical/Outdoors	14 (2)	15 (2)	106	118
6 Physical/Indoors	7 (1)	8 (1)	64	68
7 Work/Study-Residence	14 (2)	16 (2)	116	147
8 Work/Study-Other	228 (11)	225 (8)	401	415
9 Cooking	27 (2)	35 (2)	58	57
10 Other Activities/Kitchen	51 (3)	73 (3)	76	87
11 Chores/Child	99 (5)	124 (4)	108	125
12 Shop/Errand	30 (2)	30 (2)	67	63
13 Other/Outdoors	67 (6)	51 (4)	117	107
14 Social/Cultural	42 (3)	62 (3)	99	101
15 Leisure-Eat/Indoors	230 (9)	211 (6)	244	218
16 Sleep/Indoors	490 (14)	481 (10)	495	483
Weekend Microenvironment	Mean Duration (standard error) ^a (mins/day)		Mean Duration for "Doer" ^b (mins/day)	
	CARB (n=503) ^c	NAT (n=789) ^c	CARB	NAT
1 Autoplaces	19 (4)	3 (1)	82	62
2 Restaurant/Bar	55 (6)	23 (2)	127	84
3 In-Vehicle/Internal Combustion	108 (8)	91 (6)	125	100
4 In-Vehicle/Other	5 (3)	0 (0)	130	30
5 Physical/Outdoors	23 (3)	23 (4)	134	132
6 Physical/Indoors	7 (1)	9 (2)	72	80
7 Work/Study-Residence	10 (2)	15 (3)	155	165
8 Work/Study-Other	74 (11)	64 (6)	328	361
9 Cooking	27 (2)	34 (2)	60	55
10 Other Activities/Kitchen	44 (3)	73 (4)	71	90
11 Chores/Child	103 (7)	120 (5)	114	121
12 Shop/Errand	35 (4)	35 (3)	81	75
13 Other/Outdoors	74 (7)	67 (7)	126	132
14 Social/Cultural	79 (7)	99 (6)	140	141
15 Leisure-Eat/Indoors	256 (12)	257 (11)	273	268
16 Sleep/Indoors	520 (20)	525 (17)	521	525
^a Standard Error of Mean				
^b Doer = Respondent who reported participating in each activity/location spent in microenvironments.				
^c Weighted Number				
Source: Robinson and Thomas, 1991.				



Table 15-10. Mean Time Spent (minutes/day) in Various Microenvironments by Age Groups for the National and California Surveys

Microenvironment	National Data Mean Duration (Standard Error) ^a									
	Age 12-17 years N=340 ^b		Age 18-24 years N=340		Age 24-44 years N=340		Age 45-64 years N=340		Age 65+ years N=340	
		"Doer" ^c		"Doer"		"Doer"		"Doer"		"Doer"
Autoplaces	2 (1)	73	7 (2)	137	2 (1)	43	4 (1)	73	4 (2)	57
Restaurant/bar	9 (2)	60	28 (3)	70	25 (3)	86	19 (2)	67	20 (5)	74
In-vehicle/internal combustion	79 (7)	88	103 (8)	109	94 (4)	101	82 (5)	91	62 (5)	80
In-vehicle/other	0 (0)	12	1 (1)	160	1 (0)	80	1 (1)	198	1 (1)	277
Physical/outdoors	32 (8)	130	17 (4)	110	19 (4)	164	7 (1)	79	15 (4)	81
Physical/indoors	15 (3)	87	8 (2)	76	7 (1)	71	7 (2)	77	7 (1)	51
Work/study- residence	22 (4)	82	19 (6)	185	16 (2)	181	9 (2)	169	5 (3)	297
Work/study-other	159 (14)	354	207 (20)	391	220 (11)	422	180 (13)	429	35 (6)	341
Cooking	11 (3)	40	18 (2)	39	38 (2)	57	43 (3)	64	50 (5)	65
Other activities/kitchen	53 (4)	64	42 (3)	55	70 (4)	86	90 (6)	101	108 (9)	119
Chores/child	91 (7)	92	124 (9)	125	133 (6)	134	121 (6)	122	119 (7)	121
Shop/errands	26 (4)	68	31 (4)	65	33 (2)	66	33 (3)	67	35 (5)	69
Other/outdoors	70 (13)	129	34 (4)	84	48 (6)	105	60 (7)	118	82 (13)	140
Social/cultural	87 (10)	120	100 (12)	141	56 (3)	94	73 (6)	116	85 (8)	122
Leisure-eat/indoors	237 (16)	242	181 (11)	189	200 (8)	208	238 (11)	244	303 (20)	312
Sleep/indoors	548 (31)	551	511 (26)	512	479 (14)	480	472 (15)	472	507 (26)	509



Table 15-10. Mean Time Spent (minutes/day) in Various Microenvironments by Age Groups (continued)

Microenvironment	CARB Data Mean Duration (Standard Error) ^a									
	Age 12-17 years N=183 ^b	"Doer" ^c	Age 18-24 years N=250	"Doer"	Age 24-44 years N=749	"Doer"	Age 45-64 years N=406	"Doer"	Age 65+ years N=158	"Doer"
Autoplaces	16 (8)	124	16 (4)	71	25 (9)	114	20 (5)	94	9 (2)	53
Restaurant/bar	16 (4)	44	40 (8)	98	44 (5)	116	31 (4)	82	25 (7)	99
In-vehicle/internal combustion	78 (11)	89	111 (13)	122	98 (5)	111	100 (11)	117	63 (8)	89
In-vehicle/other	1 (0)	19	3 (1)	60	5 (2)	143	2 (1)	56	2 (1)	53
Physical/outdoors	32 (7)	110	13 (3)	88	17 (3)	128	14 (3)	123	15 (4)	104
Physical/indoors	20 (4)	65	5 (2)	77	6 (1)	61	5 (1)	77	3 (1)	48
Work/study-residence	25 (5)	76	30 (11)	161	7 (2)	137	10 (3)	139	5 (3)	195
Work/study-other	196 (30)	339	201 (24)	344	215 (14)	410	173 (20)	429	30 (11)	336
Cooking	3 (1)	19	14 (2)	40	32 (2)	59	31 (3)	68	41 (7)	69
Other activities/kitchen	31 (4)	51	31 (5)	55	43 (3)	65	62 (6)	91	97 (14)	119
Chores/child	72 (11)	77	79 (8)	85	110 (6)	119	99 (8)	109	123 (15)	141
Shop/errands	14 (3)	50	35 (7)	71	33 (4)	71	32 (3)	77	35 (5)	76
Other/outdoors	58 (8)	78	80 (15)	130	68 (8)	127	76 (12)	134	55 (7)	101
Social/cultural	63 (14)	109	65 (10)	110	50 (5)	122	50 (5)	107	49 (7)	114
Leisure-eat/indoors	260 (27)	270	211 (19)	234	202 (9)	215	248 (15)	261	386 (34)	394
Sleep/indoors	557 (44)	560	506 (30)	510	487 (17)	491	485 (23)	491	502 (31)	502
^a Standard error. ^b All N's are weighted number. ^c Doer = Respondents who reported participating in each activity/location spent in microenvironments. Source: Robinson and Thomas, 1991.										



Table 15-11. Mean Time (minutes/day) Children Spent in Ten Major Activity Categories for All Respondents

Activity Category	Mean Duration (mins/day)	% Doing	Mean Duration for Doers ^b (mins/day)	Median Duration for Doer (mins/day)	Maximum Duration for Doers (mins/day)	Detailed Activity with Highest Avg. Minutes (code)
Work-related ^a	10	25	39	30	405	Eating at work/school/daycare (06)
Household	53	86	61	40	602	Travel to household (199)
Childcare	< 1	< 1	83	30	290	Other child care (27)
Goods/Services	21	26	81	60	450	Errands (38)
Personal Needs and Care ^c	794	100	794	770	1440	Night sleep (45)
Education ^d	110	35	316	335	790	School classes (50)
Organizational Activities	4	4	111	105	435	Attend meetings (60)
Entertain/Social	15	17	87	60	490	Visiting with others (75)
Recreation	239	92	260	240	835	Games (87)
Communication/Passive Leisure	192	93	205	180	898	TV use (91)
Don't know/Not coded	2	4	41	15	600	--
All Activities ^e	1441					

^a Includes eating at school or daycare, an activity not grouped under the "education activities" (codes 50-59, 549).

^b "Doers" indicate the respondents who reported participating in each activity category.

^c Personal care includes night sleep and daytime naps, eating, travel for personal care.

^d Education includes student and other classes, homework, library, travel for education.

^e Column total may not sum to 1440 due to rounding error

Source: Wiley et al., 1991.

Table 15-12. Mean Time Children Spent in Ten Major Activity Categories Grouped by Age and Gender

Activity Category	Mean Duration (minutes/day)									
	Boys					Girls				
	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	All Ages	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	All Ages
Work-related	4	9	14	12	10	5	12	11	10	10
Household	33	45	55	65	48	58	44	51	76	57
Childcare	0	0	0	1	<1	0	0	0	4	1
Goods/Services	20	22	19	14	19	22	25	23	22	23
Personal Needs and Care ^a	914	799	736	690	792	906	816	766	701	797
Education ^b	60	67	171	138	106	41	95	150	176	115
Organizational Activities	1	3	7	6	4	6	1	4	6	4
Entertainment/Social	3	15	5	34	13	5	16	9	36	17
Recreation	217	311	236	229	250	223	255	238	194	228
Communication/Passive Leisure	187	166	195	250	197	171	173	189	213	186
Don't know/Not coded	1	4	1	1	2	3	1	<1	3	2
All Activities ^c	1440	1441	1439	1440	1442	1440	1438	1441	1441	1440
Sample Sizes Unweighted N's	172	151	145	156	624	141	151	124	160	576

^a Personal needs and care includes night sleep and daytime naps, eating, travel for personal care.

^b Education includes student and other classes, homework, library, travel for education.

^c The column totals may differ from 1440 due to rounding error.

Source: Wiley et al., 1991.



Table 15-13. Mean Time Children Spent in Ten Major Activity Categories Grouped by Seasons and Regions									
Activity Category	Mean Duration (minutes/day)								
	Season					Region of California			
	Winter (Jan-Mar)	Spring (Apr-June)	Summer (July-Sept)	Fall (Oct-Dec)	All Seasons	So. Coast	Bay Area	Rest of State	All Regions
Work-related	10	10	6	13	10	10	10	8	10
Household	47	58	53	52	53	45	62	55	53
Childcare	<1	1	<1	<1	<1	<1	<1	1	<1
Goods/Services	19	17	26	23	21	20	21	23	21
Personal Needs and Care ^a	799	774	815	789	794	799	785	794	794
Education ^b	124	137	49	131	110	109	115	109	110
Organizational Activities	3	5	5	3	4	2	6	6	4
Entertainment/Social	14	12	12	22	15	17	10	16	15
Recreation	221	243	282	211	239	230	241	249	239
Communication/Passive Leisure	203	180	189	195	192	206	190	175	192
Don't know/Not coded	<1	2	3	<1	2	1	1	3	2
All Activities ^c	1442	1439	1441	1441	1441	1440	1442	1439	1441
Sample Sizes (Unweighted)	318	204	407	271	1200	224	263	713	1200
^a Personal needs and care includes night sleep and daytime naps, eating, travel for personal care. ^b Education includes student and other classes, homework, library, travel for education. ^c The column totals may not be equal to 1440 due to rounding error. Source: Wiley et al., 1991.									

Table 15-14. Mean Time Children Spent in Six Major Location Categories for All Respondents (minutes/day)						
Location Category	Mean Duration (mins)	% Doing	Mean Duration for Doers (mins)	Median Duration for Doers (mins)	Maximum Duration for Doers (mins)	Detailed Location with Highest Avg. Time
Home	1,078	99	1,086	1,110	1,440	Home - bedroom
School/Childcare	109	33	330	325	1,260	School or daycare facility
Friend's/Other's House	80	32	251	144	1,440	Friend's/other's house - bedroom
Stores, Restaurants, Shopping Places	24	35	69	50	475	Shopping mall
In-transit	69	83	83	60	1,111	Traveling in car
Other Locations	79	57	139	105	1,440	Park, playground
Don't Know/Not Coded	<1	1	37	30	90	--
All Locations	1,440					
Source: Wiley et al., 1991.						



Table 15-15. Mean Time Children Spent in Six Location Categories Grouped by Age and Gender										
Location Category	Mean Duration (minutes/day)									
	Boys					Girls				
	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	All Boys	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	All Girls
Home	1,157	1,134	1,044	1,020	1,094	1,151	1,099	1,021	968	1,061
School/Childcare	86	88	144	120	108	59	102	133	149	111
Friend's/Other's House	67	73	77	109	80	56	47	125	102	80
Stores, Restaurants, Shopping Places	21	25	22	15	21	23	35	27	26	28
In-transit	54	62	61	62	59	76	88	53	93	79
Other Locations	54	58	92	114	77	73	68	81	102	81
Don't Know/Not Coded	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
All Locations ^a	1,439	1,440	1,439	1,440	1,439	1,438	1,440	1,440	1,440	1,440
Sample Sizes (Unweighted)	172	151	145	156	624	141	151	124	160	576
^a The column totals may not sum to 1,440 due to rounding error. Source: Wiley et al., 1991.										

Table 15-16. Mean Time Children Spent in Six Location Categories Grouped by Season and Region										
Location Category	Mean Duration (minutes/day)									
	Season					Region of California				
	Winter (Jan-Mar)	Spring (Apr-June)	Summer (July-Sept)	Fall (Oct-Dec)	All Seasons	So. Coast	Bay Area	Rest of State	All Regions	
Home	1,091	1,042	1,097	1,081	1,078	1,078	1,078	1,078	1,078	
School/Childcare	119	141	52	124	109	113	103	108	109	
Friend's/Other's House	69	75	108	69	80	73	86	86	80	
Stores, Restaurants, Shopping Places	22	21	30	24	24	26	23	23	24	
In-transit	75	75	60	65	69	71	73	63	69	
Other Locations	63	85	93	76	79	79	76	81	79	
Don't Know/Not Coded	<1	<1	<1	<1	<1	<1	<1	<1	<1	
All Locations ^a	1,439	1,439	1,440	1,439	1,439	1,439	1,440	1,440	1,439	
Sample Sizes (Unweighted N's)	318	204	407	271	1,200	224	263	713	1,200	
^a The column totals may not sum to 1,440 due to rounding error. Source: Wiley et al., 1991.										



Table 15-17. Mean Time Children Spent in Proximity to Three Potential Exposures Grouped by All Respondents, Age, and Gender											
Potential Exposures	Mean Duration (minutes/day)										
	Boys					Girls					All Girls
	All Children	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	All Boys	0-2 yrs	3-5 yrs	6-8 yrs	9-11 yrs	
Tobacco Smoke	77	115	75	66	66	82	77	68	71	74	73
Gasoline Fumes	2	2	1	1	4	2	1	1	3	1	1
Gas Oven Fumes	11	10	15	12	11	12	12	10	10	7	10
Sample Sizes (Unweighted N's)	1,166 ^a	168	148	144	150	610	140	147	122	147	556
^a Respondents with missing data were excluded. Source: Wiley et al., 1991.											

Table 15-18. Range of Recommended Defaults for Dermal Exposure Factors						
	Water Contact				Soil Contact	
	Bathing		Swimming		Central	Upper
	Central	Upper	Central	Upper		
Event time and frequency ^a	10 min/event 1 event/day 350 days/yr	15 min/event 1 event/day 350 days/yr	0.5 hr/event 1 event/day 5 days/yr	1.0 hr/event 1 event/day 150 days/yr	40 events/yr	350 events/yr
Exposure duration	9 years	30 years	9 years	30 years	9 years	30 years
^a Bathing event time is presented to be representative of baths as well as showers. Source: U.S. EPA 1992.						



Table 15-19. Number of Times Taking a Shower at Specified Daily Frequencies by the Number of Respondents											
	Total N	Times/Day									DK
		0	1	2	3	4	5	8	10	11:1-0+	
Overall	3594	2	2747	802	30	1	1	1	1	4	5
Gender											
Male	1720	*	1259	436	21	1	*	*	*	1	2
Female	1872	2	1486	366	9	*	1	1	1	3	3
Refused	2	*	2	*	*	*	*	*	*	*	*
Age (years)											
*	64	*	46	17	*	*	*	*	*	*	1
1-4	41	*	30	9	1	*	*	*	*	*	1
5-11	140	*	112	26	1	*	*	*	*	*	1
12-17	270	*	199	65	6	*	*	*	*	*	*
18-64	2650	1	1983	636	21	1	1	1	1	3	2
> 64	429	1	377	49	1	*	*	*	*	1	*
Race											
White	2911	2	2323	562	17	*	1	*	*	4	2
Black	349	*	199	140	7	1	*	1	*	*	1
Asian	64	*	49	14	1	*	*	*	*	*	*
Some Others	65	*	40	23	2	*	*	*	*	*	*
Hispanic	162	*	103	56	2	*	*	*	1	*	*
Refused	43	*	33	7	1	*	*	*	*	*	2
Hispanic											
No	3269	2	2521	711	24	1	1	1	*	4	4
Yes	277	*	190	81	5	*	*	*	1	*	*
DK	17	*	13	4	*	*	*	*	*	*	*
Refused	31	*	23	6	1	*	*	*	*	*	1
Employment											
*	439	*	330	99	8	*	*	*	*	*	2
Full Time	1838	1	1361	454	17	*	*	*	1	2	2
Part Time	328	1	261	65	*	*	1	*	*	*	*
Not Employed	967	*	780	177	5	1	*	1	*	2	1
Refused	22	*	15	7	*	*	*	*	*	*	*
Education											
*	515	*	382	121	9	*	*	*	*	*	3
< High School	297	*	240	54	2	*	*	*	*	1	*
High School Graduate	1042	1	789	243	5	*	1	1	1	1	1
< College	772	1	589	176	4	*	*	*	1	*	1
College Graduate	576	*	434	133	7	1	*	*	*	1	*
Post Graduate	392	*	313	75	3	*	*	*	*	1	*
Census Region											
Northeast	828	*	622	196	7	*	*	*	*	*	3
Midwest	756	*	621	131	3	*	*	*	*	*	1
South	1246	1	893	334	14	1	*	*	*	3	*
West	764	1	611	141	6	*	1	1	1	1	1
Day of Week											
Weekday	2481	*	1889	563	17	1	1	1	1	4	4
Weekend	1113	2	858	239	13	*	*	*	*	*	1
Season											
Winter	941	*	732	198	9	*	*	*	*	1	1
Spring	889	*	674	205	7	*	*	*	1	*	2
Summer	1003	*	735	254	10	1	*	*	*	2	1
Fall	761	2	606	145	4	*	1	1	*	1	1
Asthma											
No	3312	2	2543	730	25	1	1	1	1	4	4
Yes	261	*	189	67	5	*	*	*	*	*	*
DK	21	*	15	5	*	*	*	*	*	*	1
Angina											
No	3481	1	2653	786	29	1	1	1	1	4	4
Yes	91	1	77	12	1	*	*	*	*	*	*
DK	22	*	17	4	*	*	*	*	*	*	1
Bronchitis/Emphysema											
No	3419	2	2620	758	27	1	1	1	1	4	4
Yes	154	*	112	39	3	*	*	*	*	*	*
DK	21	*	15	5	*	*	*	*	*	*	1

Note: * Signifies missing data; Dk= don't know; N = sample size.
Source: Tsang and Klepeis,1996



Table 15-20. Times (minutes) Spent Taking Showers by the Number of Respondents									
	Total N	Minutes/Shower							
		.	0-10	10-20	20-30	30-40	40-50	50-60	60-61
Overall	3594	47	1640	1348	397	72	52	51	17
Gender									
Male	1720	13	788	625	213	35	25	14	7
Female	1872	34	850	693	184	37	27	37	10
Refused	2	*	2	*	*	*	*	*	*
Age									
*	64	6	27	23	3	1	*	2	2
1-4	41	1	13	14	10	1	*	2	*
5-11	140	1	60	52	18	3	2	4	*
12-17	270	2	94	104	40	13	9	7	1
18-64	2650	16	1238	977	288	50	37	33	11
>64	429	21	208	148	38	4	4	3	3
Race									
White	2911	38	1406	1070	292	39	31	26	9
Black	349	5	115	120	58	20	11	16	4
Asian	64	*	25	25	10	1	2	*	1
Some Others	65	*	18	29	6	3	4	4	1
Hispanic	162	1	57	60	25	8	4	5	2
Refused	43	3	19	14	6	1	*	*	*
Hispanic									
No	3269	43	1526	1188	352	61	42	44	13
Yes	277	1	98	109	40	10	8	7	4
DK	17	*	5	9	1	*	2	*	*
Refused	31	3	11	12	4	1	*	*	*
Employment									
*	439	4	163	165	66	17	10	12	2
Full Time	1838	10	875	682	191	32	20	20	8
Part Time	328	4	160	112	39	4	5	3	1
Not Employed	967	27	431	355	97	19	16	16	6
Refused	22	2	11	4	4	*	1	*	*
Education									
*	515	10	190	186	79	21	13	14	2
< High School	297	8	93	125	51	6	7	6	1
High School Graduate	1042	12	451	409	108	23	17	16	6
< College	772	12	377	271	79	14	6	7	6
College Graduate	576	2	297	211	50	5	5	3	1
Post Graduate	392	3	232	116	30	3	4	3	1
Census Region									
Northeast	828	7	374	326	79	15	11	12	4
Midwest	756	11	385	253	70	16	9	9	3
South	1246	26	490	461	179	35	26	23	6
West	764	3	391	278	69	6	6	7	4
Day of Week									
Weekday	2481	34	1134	908	279	46	38	32	10
Weekend	1113	13	506	410	118	26	14	19	7
Season									
Winter	941	12	421	358	95	18	15	16	6
Spring	889	14	410	314	93	21	14	18	5
Summer	1003	11	435	366	128	29	17	12	5
Fall	761	10	374	280	81	4	6	5	1
Asthma									
No	3312	38	1526	1222	362	65	44	41	14
Yes	261	4	108	89	33	7	8	10	2
DK	21	5	6	7	2	*	*	*	1
Angina									
No	3481	36	1591	1276	389	70	51	51	17
Yes	91	7	38	36	8	1	1	*	*
DK	22	4	11	6	*	1	*	*	*
Bronchitis/Emphysema									
No	3419	40	1566	1258	375	67	47	50	16
Yes	154	3	66	54	19	5	5	1	1
DK	21	4	8	6	3	*	*	*	*
NOTE: * - Missing data; DK = don't know; N = sample size; Refused = Refused to answer. A value of 61 for number of minutes signifies that more than 60 minutes were spent. Source: Tsang and Klepeis, 1996.									



Table 15-21. Number of Minutes Spent Taking a Shower (minutes/shower)

Category	Population Group	Total N	Percentiles											
			1	2	5	10	25	50	75	91	95	98	99	100
Overall		3547	3	4	5	5	10	15	20	30	35	50	60	61
Gender	Male	1707	3	4	5	5	10	15	20	30	30	45	60	61
Gender	Female	1838	3	4	5	5	10	15	20	30	40	60	60	61
Age (years)	1-4	40	5	5	5	5	5	10	17.5	30	50	60	60	60
Age (years)	5-11	139	3	4	5	5	10	15	20	30	40	60	60	60
Age (years)	12-17	268	5	5	5	7	10	15	25	35	45	60	60	61
Age (years)	18-64	2634	3	3	5	5	10	15	20	30	30	45	60	61
Age (years)	>64	408	3	3	5	5	10	10	20	30	30	45	60	61
Race	White	2873	3	4	5	5	10	13	20	30	30	45	60	61
Race	Black	344	4	4	5	6	10	20	30	40	60	60	61	61
Race	Asian	64	1	3	4	5	10	15	20	30	40	48	61	61
Race	Some Others	65	3	3	5	10	10	15	30	45	60	60	61	61
Race	Hispanic	161	3	4	5	6	10	15	25	40	45	60	61	61
Hispanic	No	3226	3	4	5	5	10	15	20	30	30	45	60	61
Hispanic	Yes	276	3	4	5	6	10	15	22.5	39	45	60	61	61
Employment	Full Time	1828	3	4	5	5	10	15	20	30	30	45	60	61
Employment	Part Time	324	2	3	5	5	10	12	20	30	30	45	60	60
Employment	Not Employed	940	3	3	5	5	10	15	20	30	40	60	60	61
Education	< High School	289	4	5	5	8	10	15	20	30	40	60	60	61
Education	High School Graduate	1030	2	3	5	5	10	15	20	30	40	60	60	61
Education	< College	760	3	5	5	5	10	12	20	30	30	45	60	61
Education	College Graduate	574	3	3	5	5	10	10	20	25	30	40	60	61
Education	Post Graduate	389	2	3	4	5	7	10	15	25	30	45	60	61
Census Region	Northeast	821	4	5	5	5	10	15	20	30	32	50	60	61
Census Region	Midwest	745	3	4	5	5	10	10	20	30	30	45	60	61
Census Region	South	1220	3	3	5	5	10	15	20	30	40	60	60	61
Census Region	West	761	2	3	5	5	10	10	15	30	30	45	60	61
Day of Week	Weekday	2447	3	4	5	5	10	15	20	30	35	48	60	61
Day of Week	Weekend	1100	3	4	5	5	10	15	20	30	40	60	60	61
Season	Winter	929	3	4	5	5	10	15	20	30	40	60	60	61
Season	Spring	875	3	4	5	5	10	15	20	30	40	60	60	61
Season	Summer	992	2	3	5	5	10	15	20	30	40	45	60	61
Season	Fall	751	3	4	5	5	10	12	20	30	30	40	48	61
Asthma	No	3274	3	4	5	5	10	15	20	30	32	45	60	61
Asthma	Yes	257	3	4	5	5	10	15	20	40	50	60	60	61
Angina	No	3445	3	4	5	5	10	15	20	30	35	50	60	61
Angina	Yes	84	3	4	5	5	10	15	15	30	30	40	45	45
Bronchitis/Emphysema	No	3379	3	4	5	5	10	15	20	30	35	50	60	61
Bronchitis/Emphysema	Yes	151	3	4	5	5	10	15	20	30	40	48	60	61

NOTE: A value of 61 for number of minutes signifies that more than 60 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-22. Time (minutes) Spent in the Shower Room Immediately After Showering by the Number of Respondents										
	Total N	Minutes/Shower								
		.	0-0	0-10	10-20	20-30	30-40	40-50	50-60	61-61
Overall	3594	61	241	2561	509	138	24	28	27	5
Gender										
Male	1720	22	113	1316	207	46	5	4	6	1
Female	1872	39	128	1243	302	92	19	24	21	4
Refused	2	*	*	2	*	*	*	*	*	*
Age (years)										
*	64	6	9	37	7	3	*	1	1	*
1-4	41	*	5	31	3	1	*	*	*	*
5-11	140	3	9	110	14	3	*	*	1	*
12-17	270	1	17	206	29	10	3	2	1	1
18-64	2650	31	171	1897	388	99	19	18	23	4
> 64	429	20	30	280	68	22	2	6	1	*
Race										
White	2911	39	189	2074	430	110	20	23	21	5
Black	349	8	23	254	42	17	*	3	2	*
Asian	64	*	7	45	9	2	*	*	1	*
Some Others	65	3	7	41	6	3	3	1	1	*
Hispanic	162	6	11	118	19	4	1	1	2	*
Refused	43	5	4	29	3	2	*	*	*	*
Hispanic										
No	3269	48	216	2328	470	130	23	26	23	5
Yes	277	8	19	200	35	8	1	2	4	*
DK	17	1	2	11	3	*	*	*	*	*
Refused	31	4	4	22	1	*	*	*	*	*
Employment										
*	439	4	28	336	48	14	3	4	2	9*
Full Time	1838	20	109	1332	267	71	12	11	16	*
Part Time	328	5	21	223	55	13	4	4	3	*
Not Employed	967	29	81	655	138	39	5	9	6	5
Refused	22	3	2	15	1	1	*	*	*	*
Education										
*	515	11	38	390	51	15	3	4	2	1
< High School	297	14	18	193	48	16	*	6	1	1
High School Graduate	1042	17	68	733	160	37	6	7	13	1
< College	772	11	56	536	118	33	7	4	5	2
College Graduate	576	3	28	426	86	19	8	3	3	*
Post Graduate	392	5	33	283	46	18	*	4	3	*
Census Region										
Northeast	828	6	61	603	116	20	6	8	8	*
Midwest	756	19	39	536	118	29	5	3	7	*
South	1246	26	74	885	171	58	10	15	4	3
West	764	10	67	537	104	31	3	2	8	2
Day of Week										
Weekday	2481	43	165	1784	342	88	20	16	19	4
Weekend	1113	18	76	777	167	50	4	12	8	1
Season										
Winter	941	11	50	678	138	36	13	9	4	2
Spring	889	13	56	636	125	37	4	8	9	1
Summer	1003	25	92	691	138	39	5	5	7	1
Fall	761	12	43	556	108	26	2	6	7	1
Asthma										
No	3312	52	225	2374	465	123	19	24	26	4
Yes	261	2	14	178	42	15	5	3	1	1
DK	21	7	2	9	2	*	*	1	*	*
Angina										
No	3481	52	233	2495	486	132	24	27	27	5
Yes	91	3	5	55	22	5	*	1	*	*
DK	22	6	3	11	1	1	*	*	*	*
Bronchitis/Emphysema										
No	3419	53	226	2446	482	131	23	27	26	5
Yes	154	2	12	104	26	7	1	1	1	*
DK	21	6	3	11	1	*	*	*	*	*

NOTE: * Signifies missing data. DK= respondents answered don't know. Refused = respondents refused to answer. N = doer sample size in specified range of number of minutes spent. A value of 61 for number of minutes signifies that more than 60 minutes were spent.
Source: Tsang and Klepeis,1996



Table 15-23. Number of Minutes Spent in the Shower Room Immediately After Showering (minutes/shower)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		3533	0	0	0	1	3	5	10	20	30	40	50	61
Gender	Male	1698	0	0	0	1	3	5	10	15	20	30	30	61
Gender	Female	1833	0	0	0	1	3	5	12	20	30	45	60	61
Age (years)	1-4	41	0	0	0	0	1	5	10	15	20	45	45	45
Age (years)	5-11	137	0	0	0	1	2	5	10	15	20	30	30	60
Age (years)	12-17	2619	0	0	0	1	3	5	10	20	30	40	52	61
Age (years)	18-64	2619	0	0	0	1	3	5	10	20	30	40	52	61
Age (years)	> 64	409	0	0	0	1	4	5	10	20	30	35	45	60
Race	White	2872	0	0	0	1	3	5	10	20	30	40	50	61
Race	Black	341	0	0	0	1	3	5	10	20	25	30	45	60
Race	Asian	64	0	0	0	0	2	5	10	15	20	30	60	60
Race	Some Others	62	0	0	0	0	3	5	10	30	35	45	52	52
Race	Hispanic	156	0	0	0	1	3	5	10	20	25	40	60	60
Hispanic	No	3221	0	0	0	1	3	5	10	20	30	40	50	61
Hispanic	Yes	269	0	0	0	1	3	5	10	20	25	45	60	60
Employment	Full Time	1818	0	0	0	1	3	5	10	20	30	35	50	60
Employment	Part Time	323	0	0	0	1	3	5	10	20	30	45	50	60
Employment	Not Employed	938	0	0	0	1	3	5	10	20	30	45	60	61
Education	< High School	283	0	0	0	1	3	5	15	20	30	45	45	61
Education	High School Graduate	1025	0	0	0	1	3	5	10	20	30	45	60	61
Education	< College	761	0	0	0	1	3	5	10	20	30	35	50	61
Education	College Graduate	573	0	0	1	1	3	5	10	20	30	35	45	60
Education	Post Graduate	387	0	0	0	1	2	5	10	20	30	30	45	60
Census Region	Northeast	822	0	0	0	1	3	5	10	20	25	40	50	60
Census Region	Midwest	737	0	0	0	1	3	5	10	20	30	35	45	60
Census Region	South	1220	0	0	0	1	3	5	10	20	30	40	45	61
Census Region	West	754	0	0	0	1	2	5	10	20	30	30	60	61
Day of Week	Weekday	2438	0	0	0	1	3	5	10	20	30	40	50	61
Day of Week	Weekend	1095	0	0	0	1	3	5	10	20	30	40	50	61
Season	Winter	930	0	0	0	1	4	5	10	20	30	40	45	61
Season	Spring	876	0	0	0	1	2	5	10	20	30	45	60	61
Season	Summer	978	0	0	0	1	3	5	10	20	30	30	50	61
Season	Fall	749	0	0	0	1	3	5	10	20	25	40	53	61
Asthma	No	3260	0	0	0	1	3	5	10	20	30	38	50	61
Asthma	Yes	259	0	0	0	1	3	5	13	20	30	40	45	61
Angina	No	3429	0	0	0	1	3	5	10	20	30	40	50	61
Angina	Yes	88	0	0	0	2	3	8.5	15	20	30	30	45	45
Bronchitis/Emphysema	No	3366	0	0	0	1	3	5	10	20	30	40	50	61
Bronchitis/Emphysema	Yes	152	0	0	0	1	2.5	5	10	20	30	30	45	60
NOTE: N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. A value of 61 for number of minutes signifies that more than 60 minutes were spent. Source: Tsang and Klepeis, 1996														



Table 15-24. Number of Baths Given or Taken in One Day by Number of Respondents												
	Total N	Number of Baths/Day										
		1	2	3	4	5	6	7	10	11	15	DK
Overall	649	459	144	20	9	4	2	1	1	1	3	5
Gender												
Male	159	117	33	5	1	*	1	1	*	*	1	*
Female	490	342	111	15	8	4	1	*	1	1	2	5
Age (years)												
*	9	8	1	*	*	*	*	*	*	*	*	*
18-64	491	322	127	20	9	4	2	1	1	1	2	2
> 64	149	129	16	*	*	*	*	*	*	*	1	3
Race												
White	487	364	92	13	7	2	1	*	*	1	2	5
Black	106	68	29	5	1	*	1	1	1	*	*	*
Asian	12	5	4	1	*	*	*	*	*	*	1	*
Some Others	12	7	4	1	*	*	*	*	*	*	*	*
Hispanic	26	10	13	1	*	2	*	*	*	*	*	*
Refused	6	5	1	*	*	*	*	*	*	*	*	*
Hispanic												
No	600	430	127	19	9	2	2	1	1	1	3	5
Yes	40	21	16	1	*	*	*	*	*	*	*	*
DK	6	5	1	*	*	*	*	*	*	*	*	*
Refused	3	3	*	*	*	*	*	*	*	*	*	*
Employment												
*	1	1	*	*	*	*	*	*	*	*	*	*
Full Time	283	183	76	12	5	2	1	1	1	1	1	1
Part Time	76	56	17	1	1	1	*	*	*	*	*	*
Not Employed	287	217	51	7	3	3	*	*	*	*	2	4
Refused	2	2	*	*	*	*	*	*	*	*	*	*
Education												
*	4	4	*	*	*	*	*	*	*	*	*	*
< High School	96	66	19	3	2	2	*	*	*	*	1	3
High School Graduate	235	167	54	8	2	*	1	1	*	*	*	2
< College	163	112	38	6	2	2	1	*	*	1	1	*
College Graduate	102	68	28	3	2	*	*	*	1	*	*	*
Post Graduate	49	42	5	*	1	*	*	*	*	*	1	*
Census Region												
Northeast	137	100	25	3	4	1	1	*	*	1	*	2
Midwest	151	116	29	4	1	*	*	*	1	*	*	*
South	255	164	70	9	2	3	1	1	*	*	2	3
West	106	79	20	4	2	*	*	*	*	*	1	*
Day of Week												
Weekday	415	299	89	10	4	2	2	1	1	1	2	4
Weekend	234	160	55	10	5	2	*	*	*	*	1	1
Season												
Winter	178	124	37	10	1	3	*	*	*	*	1	2
Spring	160	126	27	4	1	*	*	1	*	*	*	1
Summer	174	112	49	4	3	1	1	*	1	*	2	1
Fall	137	97	31	2	4	*	1	*	*	1	*	1
Asthma												
No	596	424	129	19	7	4	2	1	1	1	3	5
Yes	52	34	15	1	2	*	*	*	*	*	*	*
DK	1	1	*	*	*	*	*	*	*	*	*	*
Angina												
No	620	435	141	19	9	4	2	1	1	1	3	4
Yes	26	22	2	1	*	*	*	*	*	*	*	1
DK	3	2	1	*	*	*	*	*	*	*	*	*
Bronchitis/Emphysema												
No	610	429	137	20	9	4	2	1	1	1	2	4
Yes	36	27	7	*	*	*	*	*	*	*	1	1
DK	3	3	*	*	*	*	*	*	*	*	*	*

NOTE: * Signifies missing data; Dk= respondents answered don't know; N = sample size; Refused = respondents refused to answer.
Source: Tsang and Klepeis, 1996



Table 15-25. Total Time Spent Taking or Giving a Bath by the Number of Respondents									
	Total N	Minutes/Bath							
		.	0-10	10-20	20-30	30-40	40-50	50-60	61-61
Overall	649	18	153	237	128	27	29	36	21
Gender									
Male	159	4	48	59	23	8	4	7	6
Female	490	14	105	178	105	19	25	29	15
Age (years)									
*	9	2	2	4	1	*	*	*	*
18-64	491	6	105	174	111	22	24	31	18
> 64	149	10	46	59	16	5	5	5	3
Race									
White	487	11	124	185	97	16	19	24	11
Black	106	4	16	35	19	8	9	9	6
Asian	12	*	2	6	3	1	*	*	*
Some Others	12	*	2	3	3	1	*	*	1
Hispanic	26	1	8	6	3	1	1	3	3
Refused	6	2	1	2	1	*	*	*	*
Hispanic									
No	600	16	136	224	120	26	27	33	18
Yes	40	1	15	10	6	1	1	3	3
DK	6	*	1	2	2	*	*	*	*
Refused	3	1	1	1	*	*	*	*	*
Employment									
*	1	*	*	*	1	*	*	*	*
Full Time	283	4	58	107	64	12	12	19	7
Part Time	76	1	26	26	15	5	1	2	*
Not Employed	287	12	69	104	48	10	16	15	13
Refused	2	1	*	*	*	*	*	*	1
Education									
*	4	1	*	2	1	*	*	*	*
< High School	96	7	15	35	16	3	6	7	7
High School Graduate	235	6	57	85	51	13	5	11	7
< College	163	4	45	53	32	4	11	8	6
College Graduate	102	*	18	44	20	5	5	9	1
Post Graduate	49	*	18	18	8	2	2	1	*
Census Region									
Northeast	137	5	43	36	31	6	7	6	3
Midwest	151	2	42	67	26	3	3	5	3
South	255	9	42	87	55	16	14	21	11
West	106	2	26	47	16	2	5	4	4
Day of Week									
Weekday	415	12	90	161	84	11	23	23	11
Weekend	234	6	63	76	44	16	6	13	10
Season									
Winter	178	5	44	63	33	9	11	9	4
Spring	160	6	39	60	27	9	7	6	6
Summer	174	3	43	62	34	7	4	14	7
Fall	137	4	27	52	34	2	7	7	4
Asthma									
No	596	16	144	218	114	26	28	33	17
Yes	52	1	9	19	14	1	1	3	4
DK	1	1	*	*	*	*	*	*	*
Angina									
No	620	14	147	226	124	25	28	35	21
Yes	26	3	6	10	3	2	1	1	*
DK	3	1	*	1	1	*	*	*	*
Bronchitis/Emphysema									
No	610	15	150	218	119	26	26	35	21
Yes	36	2	3	17	9	1	3	1	*
DK	3	1	*	2	*	*	*	*	*

NOTE: * Signifies missing data. Dk= respondents answered don't know. Refused = respondents refused to answer. N = doer sample size in a specified range of number of minutes spent. A value of 61 for number of minutes signifies that more than 60 minutes were spent.
Source: Tsang and Klepeis,1996



Table 15-26. Number of Minutes Spent Giving and Taking the Bath(s) (minutes/bath)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		631	2	5	5	10	15	20	30	45	60	61	61	61
Gender	Male	155	1	4	5	6	10	15	30	45	60	61	61	61
Gender	Female	476	3	5	5	10	15	20	30	45	60	61	61	61
Age (years)	18-64	485	2	5	5	10	15	20	30	60	60	61	61	61
Age (years)	> 64	139	3	5	5	5	10	15	20	40	60	61	61	61
Race	White	476	1	4	5	10	10	20	30	45	60	61	61	61
Race	Black	102	5	5	9	10	15	22.5	40	60	61	61	61	61
Race	Asian	12	10	10	10	10	15	20	27.5	30	40	40	40	40
Race	Some Others	12	5	5	5	10	15	27.5	30	40	61	61	61	61
Race	Hispanic	25	2	2	5	5	10	20	45	61	61	61	61	61
Hispanic	No	584	2	5	5	10	15	20	30	45	60	61	61	61
Hispanic	Yes	39	2	2	5	5	10	20	30	60	61	61	61	61
Employment	Full Time	279	1	4	5	10	15	20	30	45	60	61	61	61
Employment	Part Time	75	3	4	5	10	10	20	30	35	40	60	60	60
Employment	Not Employed	275	2	5	5	10	10	20	30	60	60	61	61	61
Education	< High School	89	1	5	10	10	15	20	35	60	61	61	61	61
Education	High School Graduate	229	5	5	5	10	12	20	30	45	60	61	61	61
Education	< College	159	1	2	5	6	10	20	30	45	60	61	61	61
Education	College Graduate	102	5	5	8	10	15	20	30	45	60	60	60	61
Education	Post Graduate	49	1	1	5	5	10	15	25	40	45	60	60	60
Census Region	Northeast	132	1	5	5	6	10	15	30	45	60	61	61	61
Census Region	Midwest	149	2	4	5	7	10	20	30	30	60	61	61	61
Census Region	South	246	3	5	10	10	15	20	35	60	60	61	61	61
Census Region	West	104	5	5	5	10	11	20	30	45	60	61	61	61
Day of Week	Weekday	403	2	5	5	10	15	20	30	45	60	61	61	61
Day of Week	Weekend	228	4	5	5	10	10	20	30	60	60	61	61	61
Season	Winter	173	2	5	5	10	10	20	30	45	60	61	61	61
Season	Spring	154	1	3	5	10	10	20	30	45	60	61	61	61
Season	Summer	171	5	5	5	10	10	20	30	60	60	61	61	61
Season	Fall	133	4	5	8	10	15	20	30	45	60	61	61	61
Asthma	No	580	2	5	5	10	12	20	30	45	60	61	61	61
Asthma	Yes	51	4	5	5	10	15	20	30	60	61	61	61	61
Angina	No	606	2	5	5	10	15	20	30	45	60	61	61	61
Angina	Yes	23	5	5	5	5	10	15	30	40	45	60	60	60
Bronchitis/Emphysema	No	595	2	5	5	10	10	20	30	45	60	61	61	61
Bronchitis/Emphysema	Yes	34	5	5	8	15	15	20	30	45	45	60	60	60
NOTE: N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. A value of 61 for number of minutes signifies that more than 60 minutes were spent.														
Source: Tsang and Klepeis, 1996														



Table 15-27. Time Spent in the Bathroom Immediately After the Bath(s) by the Number of Respondents										
	Minutes/Bath									
	Total N	*-*	0-0	0-10	10-20	20-30	30-40	40-50	50-60	61-61
Overall	649	25	85	422	74	23	7	6	5	2
Gender										
Male	159	6	18	118	11	4	1	1	*	*
Female	490	19	67	304	63	19	6	5	5	2
Age (years)										
*	9	2	2	4	1	*	*	*	*	*
18-64	491	7	71	336	50	14	4	5	2	2
> 64	149	16	12	82	23	9	3	1	3	*
Race										
White	487	22	59	319	58	15	4	4	5	1
Black	106	2	14	67	13	5	3	2	*	*
Asian	12	*	2	9	*	*	*	*	*	*
Some Others	12	*	5	6	1	*	*	*	*	*
Hispanic	26	*	4	18	*	3	*	*	*	1
Refused	6	1	1	3	1	*	*	*	*	*
Hispanic										
No	600	25	76	390	71	20	7	6	4	1
Yes	40	*	7	28	1	3	*	*	*	1
DK	6	*	1	3	1	*	*	*	1	*
Refused	3	*	1	1	1	*	*	*	*	*
Employment										
*	1	*	*	1	*	*	*	*	*	*
Full Time	283	6	35	203	30	7	1	1	*	*
Part Time	76	1	9	54	8	2	2	*	*	*
Not Employed	287	18	41	164	35	14	4	4	5	2
Refused	2	*	*	1	1	*	*	1	*	*
Education										
*	4	1	*	2	1	*	*	*	*	*
< High School	96	10	11	51	12	7	1	*	2	2
High School Graduate	235	6	35	158	25	7	3	3	1	*
< College	163	4	17	113	18	4	3	2	2	*
College Graduate	102	2	14	66	15	4	*	1	*	*
Post Graduate	49	2	8	32	6	1	*	*	*	*
Census Region										
Northeast	137	8	13	91	16	8	*	*	1	*
Midwest	151	5	20	100	18	3	2	1	2	*
South	255	9	31	164	30	9	5	4	1	2
West	106	3	21	67	10	3	*	1	1	*
Day of Week										
Weekday	415	17	53	280	40	16	2	4	2	1
Weekend	234	8	32	142	34	7	5	2	3	1
Season										
Winter	178	3	14	122	24	7	3	1	2	2
Spring	160	8	21	96	20	8	4	2	1	*
Summer	174	9	31	110	16	6	*	2	*	*
Fall	137	5	19	94	14	2	*	1	2	*
Asthma										
No	596	24	75	388	69	21	7	5	5	2
Yes	52	1	10	34	4	2	*	1	*	*
DK	1	*	*	*	1	*	*	*	*	*
Angina										
No	620	23	82	405	70	22	6	6	4	2
Yes	26	2	2	17	3	1	*	*	1	*
DK	3	*	1	*	1	*	1	*	*	*
Bronchitis/Emphysema										
No	610	22	78	400	71	21	6	5	5	2
Yes	36	3	6	21	2	2	1	1	*	*
DK	3	*	1	1	1	*	*	*	*	*

Note: * Signifies missing data. Dk= respondents answered don't know. Refused = respondents refused to answer. N = doer sample size in specified range of number of minutes spent. A value of 61 for number of minutes signifies that more than 60 minutes were spent.

Source: Tsang and Klepeis,1996



Table 15-28. Number of Minutes Spent in the Bathroom Immediately After the Bath(s) (minutes/bath)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		624	0	0	0	0	2	5	10	20	30	45	55	61
Gender	Male	153	0	0	0	0	2	5	10	12	20	30	35	45
Gender	Female	471	0	0	0	0	2	5	10	20	30	45	60	61
Age (years)	18-64	484	0	0	0	0	2	5	10	15	25	40	50	61
Age (years)	> 64	133	0	0	0	1	5	10	15	30	35	55	60	60
Race	White	465	0	0	0	0	2	5	10	18	30	45	58	61
Race	Black	104	0	0	0	0	2	5	10	20	30	40	45	45
Race	Asian	12	0	0	0	0	2	5	7.5	10	20	20	20	20
Race	Some Others	12	0	0	0	0	0	3	7.5	10	15	15	15	15
Race	Hispanic	26	0	0	0	0	1	5	10	25	25	61	61	61
Hispanic	No	575	0	0	0	0	2	5	10	20	30	40	50	61
Hispanic	Yes	40	0	0	0	0	1	5	10	22.5	25	61	61	61
Employment	Full Time	277	0	0	0	0	2	5	10	15	20	30	30	45
Employment	Part Time	75	0	0	0	0	3	5	10	15	25	35	40	40
Employment	Not Employed	269	0	0	0	0	2	5	10	25	35	58	60	61
Education	< High School	86	0	0	0	0	5	10	15	30	35	61	61	61
Education	High School Graduate	229	0	0	0	0	2	5	10	15	30	40	45	58
Education	< College	159	0	0	0	0	2	5	10	15	30	45	60	60
Education	College Graduate	100	0	0	0	0	1.5	5	10	19	25	30	37.5	45
Education	Post Graduate	47	0	0	0	0	1	5	10	15	20	30	30	30
Census Region	Northeast	129	0	0	0	0	2	5	10	20	30	30	30	60
Census Region	Midwest	146	0	0	0	0	2	5	10	15	25	50	60	60
Census Region	South	246	0	0	0	0	3	5	10	20	30	45	55	61
Census Region	West	103	0	0	0	0	1	5	10	20	20	30	45	58
Day of Week	Weekday	398	0	0	0	0	2	5	10	18	30	40	50	61
Day of Week	Weekend	226	0	0	0	0	3	5	10	20	30	45	60	61
Season	Winter	175	0	0	0	1	3	5	10	20	30	58	61	61
Season	Spring	152	0	0	0	0	2	5	10	20	30	40	45	60
Season	Summer	165	0	0	0	0	2	5	10	15	20	30	45	50
Season	Fall	132	0	0	0	0	2	5	10	15	20	45	55	60
Asthma	No	572	0	0	0	0	2	5	10	20	30	45	58	61
Asthma	Yes	51	0	0	0	0	1	5	10	15	30	30	45	45
Angina	No	597	0	0	0	0	2	5	10	20	30	45	58	61
Angina	Yes	24	0	0	0	1	5	5	10	15	30	55	55	55
Bronchitis/Emphysema	No	588	0	0	0	0	2	5	10	20	30	45	58	61
Bronchitis/Emphysema	Yes	33	0	0	0	0	2	5	10	30	40	45	45	45

NOTE: N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. A value of 61 for number of minutes signifies that more than 60 minutes were spent.
Source: Tsang and Klepeis, 1996



Table 15-29. Total Time Spent Altogether in the Shower or Bathtub by the Number of Respondents

	Total N	Minutes/Bath													
		-	0-0	0-10	10-20	20-30	30-40	40-50	50-60	70-80	80-90	90-100	100-110	110-120	121-121
Overall	4290	38	5	1903	1577	548	46	65	67	3	6	2	1	21	8
Gender															
Male	1934	8	1	872	735	234	19	24	24	1	1	1	1	10	3
Female	2355	30	4	1031	841	314	27	41	43	2	5	1	*	11	5
Refused	1	*	*	*	1	*	*	*	*	*	*	*	*	*	*
Age (years)															
*	86	5	1	26	36	12	*	1	4	*	*	*	*	*	1
1-4	198	*	*	35	84	50	2	13	7	1	1	*	*	4	*
5-11	265	2	*	64	107	66	3	7	7	2	2	1	1	2	1
12-17	239	*	*	78	96	46	3	5	8	*	*	*	*	1	*
18-64	2919	15	1	1429	1051	303	32	31	35	*	3	*	*	13	6
> 64	583	16	3	271	203	71	4	8	6	*	*	*	*	1	*
Race															
White	3452	27	4	1616	1248	401	35	44	50	1	3	*	1	16	6
Black	453	7	1	141	177	89	7	11	11	2	*	1	*	4	2
Asian	74	*	*	33	31	7	*	1	1	*	1	*	*	*	*
Some Others	78	*	*	24	28	19	2	3	2	*	*	*	*	*	*
Hispanic	180	2	*	63	79	24	2	4	2	*	2	1	*	1	*
Refused	53	2	*	26	14	8	*	2	1	*	*	*	*	*	*
Hispanic															
No	3892	31	4	1744	1423	496	41	56	62	3	4	1	1	18	8
Yes	333	5	1	128	136	40	5	8	5	*	*	*	*	1	*
DK	21	1	*	7	4	4	*	*	*	*	*	*	*	*	*
Refused	44	1	*	24	10	8	*	1	*	*	*	*	*	*	*
Employment															
*	692	2	*	172	284	162	9	24	22	3	3	2	1	7	1
Full Time	1985	11	2	1002	707	190	20	20	18	*	*	*	*	12	3
Part Time	400	5	1	190	147	44	4	4	5	*	*	*	*	*	4
Not Employed	1181	20	2	524	429	146	13	17	22	*	3	*	*	1	*
Refused	32	*	*	15	10	6	*	*	*	*	*	*	*	1	*
Education															
*	775	6	*	200	317	175	10	26	24	3	3	2	1	7	1
< High School	386	10	2	132	147	66	7	8	10	*	1	*	*	1	2
High School Graduate	1254	12	1	574	476	138	14	14	18	*	*	*	*	2	3
< College	864	2	*	414	331	93	6	7	8	*	1	*	*	2	*
College Graduate	558	4	1	308	168	53	7	7	4	*	1	*	*	5	*
Post Graduate	453	4	1	275	138	23	2	3	3	*	*	*	*	2	2
Census Region															
Northeast	927	7	*	436	328	106	11	14	12	1	2	1	*	6	3
Midwest	956	9	3	440	343	126	5	15	10	*	2	1	*	2	*
South	1513	16	2	601	588	208	22	25	35	2	1	*	1	8	4
West	894	6	*	426	318	108	8	11	10	*	1	*	*	5	1
Day of Week															
Weekday	2881	23	3	1346	1038	336	30	40	39	1	1	2	1	16	5
Weekend	1409	15	2	557	539	212	16	25	28	2	5	*	*	5	3
Season															
Winter	1124	8	1	504	417	137	14	13	19	1	3	*	*	7	3
Spring	1145	15	3	499	417	149	9	22	17	*	*	1	*	7	2
Summer	1165	11	1	495	420	176	14	19	19	1	2	1	*	5	1
Fall	856	4	*	405	323	86	9	11	12	*	1	*	1	2	2
Asthma															
No	3946	35	5	1767	1445	502	38	53	65	3	5	2	1	19	6
Yes	327	2	*	128	128	43	8	11	2	*	1	*	*	2	2
DK	17	1	*	8	4	*	*	1	*	*	*	*	*	*	*
Angina															
No	4151	34	5	1839	1529	530	45	62	66	3	6	2	1	21	8
Yes	114	3	*	52	41	14	1	2	1	*	*	*	*	*	*
DK	25	1	*	12	7	4	*	1	*	*	*	*	*	*	*
Bronchitis/Emphysema															
No	4059	34	3	1803	1502	517	42	58	63	3	5	2	1	19	7
Yes	207	2	2	86	71	28	4	6	4	*	1	*	*	2	1
DK	24	2	*	14	4	3	*	1	*	*	*	*	*	*	*

Note: * Signifies missing data. DK = respondents answered "don't know". Refused = respondents refused to answer. N = doer sample size in specified range of number of minutes spent. A value of "121" for number of minutes signifies that more than 120 minutes were spent.

Source: Tsang and Klepeis, 1996



Table 15-30. Total Number of Minutes Spent Altogether in the Shower or Bathtub (minutes/bath)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4252	3	4	5	5	10	15	20	30	35	60	60	121
Gender	Male	1926	3	4	5	5	10	15	20	30	30	60	60	121
Gender	Female	2325	3	4	5	5	10	15	20	30	40	60	75	121
Age (years)	1-4	198	1	5	5	10	15	20	30	45	60	120	120	120
Age (years)	5-11	263	4	5	5	10	13	20	30	30	60	90	120	121
Age (years)	12-17	239	4	4	5	7	10	15	30	30	45	60	60	120
Age (years)	18-64	2904	3	4	5	5	10	13.5	20	30	30	50	60	121
Age (years)	> 64	567	2	3	5	5	10	15	20	30	30	45	60	120
Race	White	3425	3	4	5	5	10	15	20	30	30	60	60	121
Race	Black	446	4	4	5	6	10	15	25	30	45	75	120	121
Race	Asian	74	5	5	5	7	10	15	15	30	30	60	90	90
Race	Some Others	78	5	5	5	7	10	15	30	30	45	60	60	60
Race	Hispanic	178	1	3	5	7	10	15	20	30	45	90	100	120
Hispanic	No	3861	3	4	5	5	10	15	20	30	35	60	60	121
Hispanic	Yes	328	1	3	5	5	10	15	20	30	45	60	90	120
Employment	Full Time	1974	3	4	5	5	10	10	20	30	30	45	60	121
Employment	Part Time	395	3	3	5	5	10	15	20	30	30	45	60	60
Employment	Not Employed	1161	2	3	5	5	10	15	20	30	35	60	60	121
Education	< High School	376	1	4	5	5	10	15	25	30	45	60	90	121
Education	High School Graduate	1242	3	4	5	5	10	15	20	30	30	60	60	121
Education	< College	862	3	4	5	5	10	15	20	30	30	45	60	120
Education	College Graduate	554	3	3	5	5	10	10	15	30	30	45	90	120
Education	Post Graduate	449	3	4	5	5	8	10	15	20	30	45	60	121
Census Region	Northeast	920	4	4	5	5	10	15	20	30	35	60	100	121
Census Region	Midwest	947	3	4	5	5	10	15	20	30	30	45	60	120
Census Region	South	1497	3	4	5	5	10	15	20	30	45	60	75	121
Census Region	West	888	3	3	5	5	10	15	20	30	30	45	60	121
Day of Week	Weekday	2858	3	4	5	5	10	15	20	30	30	60	60	121
Day of Week	Weekend	1394	3	4	5	5	10	15	20	30	40	60	75	121
Season	Winter	1116	3	4	5	5	10	15	20	30	35	60	60	121
Season	Spring	1130	3	4	5	5	10	15	20	30	40	60	90	121
Season	Summer	1154	3	4	5	5	10	15	20	30	40	60	60	121
Season	Fall	852	3	5	5	5	10	15	20	30	30	60	60	121
Asthma	No	3911	3	4	5	5	10	15	20	30	30	60	60	121
Asthma	Yes	325	3	4	5	5	10	15	20	30	45	60	120	121
Angina	No	4117	3	4	5	5	10	15	20	30	35	60	60	121
Angina	Yes	111	3	4	5	5	10	15	20	30	30	45	45	60
Bronchitis/Emphysema	No	4025	3	4	5	5	10	15	20	30	30	60	60	121
Bronchitis/Emphysema	Yes	205	1	3	5	5	10	15	20	30	45	60	120	121
Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.														
Source: Tsang and Klepeis, 1996.														



Table 15-31. Time Spent in the Bathroom Immediately Following a Shower or Bath by the Number of Respondents													
	Total N	Minutes/Shower or Bath											
		-	0-0	0-10	10-20	20-30	30-40	40-50	50-60	70-80	80-90	110-120	121-121
Overall	4290	108	348	2770	713	250	20	32	35	1	2	7	4
Gender													
Male	1934	37	138	1357	312	67	5	8	6	*	*	1	3
Female	2355	71	210	1413	400	183	15	24	29	1	2	6	1
Refused	1	*	*	*	1	*	*	*	*	*	*	*	*
Age (years)													
*	86	12	8	38	19	6	*	1	1	*	*	*	1
1-4	198	2	59	123	12	*	1	1	*	*	*	*	*
5-11	265	5	33	198	23	3	1	1	1	*	*	*	*
12-17	239	1	17	165	34	16	1	3	2	*	*	1	*
18-64	2919	53	184	1901	517	189	14	25	26	1	1	5	3
> 64	583	35	47	345	108	36	3	2	5	*	1	1	*
Race													
White	3452	80	271	2235	590	194	15	29	24	1	2	7	4
Black	453	15	49	276	63	35	4	2	9	*	*	*	*
Asian	74	2	8	48	12	4	1	1	*	*	*	*	*
Some Others	78	2	7	46	19	3	*	*	1	*	*	*	*
Hispanic	180	4	8	134	21	12	*	*	1	*	*	*	*
Refused	53	7	5	31	8	2	*	*	*	*	*	*	*
Hispanic													
No	3892	95	316	2504	655	227	19	32	32	1	1	6	4
Yes	333	8	28	227	46	21	1	*	2	*	*	*	*
DK	21	1	1	10	5	2	*	*	1	*	1	1	*
Refused	44	5	3	29	7	*	*	*	*	*	*	*	*
Employment													
*	692	8	111	479	66	17	3	4	3	*	*	1	*
Full Time	1985	36	122	1302	357	120	10	16	14	1	1	3	3
Part Time	400	8	22	256	71	32	2	5	2	1	1	2	1
Not Employed	1181	52	93	712	214	79	5	7	16	*	1	1	1
Refused	32	4	*	21	5	2	*	*	*	*	*	*	*
Education													
*	775	14	114	531	82	20	3	7	3	*	*	1	*
< High School	386	28	30	220	65	30	2	1	5	*	2	1	2
High School Graduate	1254	34	89	799	204	92	8	12	10	1	*	4	1
< College	864	17	59	568	158	46	4	2	9	*	*	*	1
College Graduate	558	8	27	362	115	31	2	8	5	*	*	*	*
Post Graduate	453	7	29	290	89	31	1	2	3	*	*	1	*
Census Region													
Northeast	927	20	69	614	161	49	3	2	6	*	*	1	2
Midwest	956	27	86	600	155	57	5	13	11	*	*	1	1
South	1513	41	119	971	235	93	7	10	10	1	2	5	1
West	894	20	74	585	142	51	4	10	8	*	*	*	*
Day of Week													
Weekday	2881	79	224	1889	474	153	15	19	19	1	1	5	2
Weekend	1409	29	124	881	239	97	5	13	16	*	1	2	2
Season													
Winter	1124	34	77	726	193	65	7	8	9	*	1	3	1
Spring	1145	26	99	756	167	70	4	12	10	*	*	1	*
Summer	1165	36	112	740	184	66	6	9	8	1	1	2	*
Fall	856	12	60	548	169	49	3	3	8	*	*	1	3
Asthma													
No	3946	101	306	2540	673	236	18	30	32	1	1	6	2
Yes	327	5	41	219	37	14	2	2	3	*	*	1	2
DK	17	2	1	11	3	*	*	*	*	*	*	*	*
Angina													
No	4151	99	333	2687	691	241	20	32	34	1	2	7	4
Yes	114	6	13	68	17	9	*	*	1	*	*	*	*
DK	25	3	2	15	5	*	*	*	*	*	*	*	*
Bronchitis/Emphysema													
No	4059	98	325	2623	684	236	19	31	32	1	1	6	3
Yes	207	6	22	133	24	14	1	1	3	*	*	1	1
DK	24	4	1	14	5	*	*	*	*	*	*	*	*

Note: * Signifies missing data. A value of "121" for number of minutes signifies that more than 120 minutes were spent. DK= respondents answered "don't know". Refused = respondents refused to answer. N = doer sample size in a specified range or number of minutes spent.

Source: Tsang and Klepeis.



Table 15-32. Number of Minutes Spent in the Bathroom Immediately Following a Shower or Bath (minutes/bath)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4182	0	0	0	1	4	5	15	20	30	40	60	121
Gender	Male	1897	0	0	0	1	3	5	10	15	20	30	40	121
Gender	Female	2284	0	0	0	1	5	10	15	30	30	45	60	121
Age (years)	1-4	196	0	0	0	0	0	2	5	10	15	20	35	45
Age (years)	5-11	260	0	0	0	0	2	5	10	15	15	30	35	120
Age (years)	12-17	238	0	0	0	2	5	5	10	20	30	45	45	60
Age (years)	18-64	2866	0	0	0	1	5	10	15	20	30	45	60	121
Age (years)	> 64	548	0	0	0	1	4	10	15	20	30	40	60	120
Race	White	3372	0	0	0	1	4	5	15	20	30	40	60	121
Race	Black	438	0	0	0	0	4	6	15	30	30	60	60	60
Race	Asian	74	0	0	0	0	2	5	10	20	30	35	45	45
Race	Some Others	76	0	0	0	1	5	10	15	20	25	30	60	60
Race	Hispanic	176	0	0	1	1	3	5	10	20	30	30	30	60
Hispanic	No	3797	0	0	0	1	4	5	15	20	30	45	60	121
Hispanic	Yes	325	0	0	0	1	3	5	10	20	30	30	30	60
Employment	Full Time	1949	0	0	0	1	5	10	15	20	30	40	60	121
Employment	Part Time	392	0	0	0	2	5	10	15	25	30	45	60	120
Employment	Not Employed	1129	0	0	0	1	5	10	15	20	30	45	60	121
Education	< High School	358	0	0	0	1	5	10	15	30	30	60	90	121
Education	High School Graduate	1220	0	0	0	1	5	10	15	25	30	45	60	121
Education	< College	847	0	0	0	1	5	10	15	20	30	30	60	121
Education	College Graduate	550	0	0	1	2	5	10	15	20	30	45	45	60
Education	Post Graduate	446	0	0	0	1	5	8	15	20	30	30	50	120
Census Region	Northeast	907	0	0	0	1	5	5	10	20	30	30	45	121
Census Region	Midwest	929	0	0	0	1	5	5	15	20	30	45	60	121
Census Region	South	1472	0	0	0	1	3.5	5	15	20	30	40	60	121
Census Region	West	874	0	0	0	1	3	5	10	20	30	45	45	60
Day of Week	Weekday	2802	0	0	0	1	4	5	10	20	30	35	50	121
Day of Week	Weekend	1380	0	0	0	1	4	8	15	20	30	45	60	121
Season	Winter	1090	0	0	0	1	5	7	15	20	30	45	60	121
Season	Spring	1119	0	0	0	1	3	5	10	20	30	45	50	120
Season	Summer	1129	0	0	0	1	3	5	10	20	30	40	52	120
Season	Fall	844	0	0	0	1	5	8	15	20	30	35	60	121
Asthma	No	3845	0	0	0	1	4	5	15	20	30	40	60	121
Asthma	Yes	322	0	0	0	0	3	5	10	20	30	60	90	121
Angina	No	4052	0	0	0	1	4	5	15	20	30	40	60	121
Angina	Yes	108	0	0	0	0	4.5	5.5	12.5	20	30	30	30	60
Bronchitis/emphysema	No	3961	0	0	0	1	4	5	15	20	30	40	60	121
Bronchitis/emphysema	Yes	201	0	0	0	0	4	10	10	30	30	60	88	121
Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.														
Source: Tsang and Klepeis, 1996.														



Table 15-33. Range of Number of Times Washing the Hands at Specified Daily Frequencies by the Number of Respondents										
	Number of Times/Day									
	Total N	*-*	0-0	1-2	3-5	6-9	10-19	20-29	30+	DK
Overall	4663	38	34	311	1692	1106	892	223	178	189
Gender										
Male	2163	16	19	218	975	487	286	59	49	54
Female	2498	22	15	92	716	619	606	164	129	135
Refused	2	*	*	1	1	*	*	*	*	*
Age (years)										
*	84	8	*	1	25	15	11	4	5	15
1-4	263	*	15	62	125	35	11	2	3	10
5-11	348	1	5	61	191	48	21	4	3	15
12-17	326	3	6	46	159	64	30	7	2	9
18-64	2972	18	7	131	1029	760	640	168	143	76
> 64	670	8	1	10	163	184	179	38	23	64
Race										
White	3774	21	28	251	1377	902	740	181	140	134
Black	463	6	2	30	149	120	85	19	23	29
Asian	77	1	*	5	29	19	12	4	1	6
Some Others	96	1	1	10	39	16	15	8	5	6
Hispanic	193	1	3	14	78	42	31	10	5	9
Refused	60	9	*	1	20	7	9	1	4	9
Hispanic										
No	4244	27	29	276	1536	1022	823	205	164	162
Yes	347	2	3	33	130	76	57	17	10	17
DK	26	*	*	1	12	4	5	1	1	2
Refused	46	9	*	1	14	4	7	*	3	8
Employment										
*	926	4	26	165	471	145	61	13	7	34
Full Time	2017	12	4	96	707	525	406	116	103	48
Part Time	379	*	*	13	142	101	86	10	15	12
Not Employed	1309	18	4	36	365	327	334	83	52	90
Refused	32	4	*	1	7	8	5	1	1	5
Education										
*	1021	13	26	174	507	158	74	13	12	44
< High School	399	2	*	8	120	96	88	26	24	35
High School Graduate	1253	12	4	56	391	318	298	70	47	57
< College	895	2	3	23	284	246	197	59	48	28
College Graduate	650	6	*	23	238	174	139	28	27	15
Post Graduate	445	3	1	22	152	114	96	27	20	10
Census Region										
Northeast	1048	9	6	68	404	243	195	55	38	30
Midwest	1036	5	7	68	373	251	212	41	38	41
South	1601	14	11	108	559	379	299	79	66	86
West	978	10	10	67	356	233	186	48	36	32
Day of Week										
Weekday	3156	34	22	199	1103	764	599	155	147	133
Weekend	1507	4	12	112	589	342	293	68	31	56
Season										
Winter	1264	6	10	91	507	286	223	55	51	35
Spring	1181	13	9	78	406	283	238	60	44	50
Summer	1275	15	9	78	443	315	232	65	48	70
Fall	943	4	6	64	336	222	199	43	35	34
Asthma										
No	4287	28	32	283	1562	1024	819	207	165	167
Yes	341	1	2	26	126	77	69	16	10	14
DK	35	9	*	2	4	5	4	*	3	8
Angina										
No	4500	28	34	306	1652	1069	851	218	171	171
Yes	125	*	*	2	32	34	36	5	4	10
DK	38	8	*	2	8	3	5	*	4	8
Bronchitis/Emphysema										
No	4424	27	33	302	1627	1040	835	213	172	175
Yes	203	3	1	7	57	61	55	10	3	6
DK	36	8	*	2	8	5	2	*	3	8
Note: * Signifies missing data. N = doer sample size in a specified range or number of minutes spent. DK= respondents answered "don't know". Refused = respondents refused to answer.										
Source: Tsang and Klepeis.1996										



Table 15-34. Number of Minutes Spent (at home) Working or Being Near Food While Fried, Grilled, or Barbequed (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		1055	0	1	2	5	10	20	30	105	121	121	121	121
Gender	Male	485	0	1	2	5	10	20	30	90	121	121	121	121
Gender	Female	570	0	0	2	5	10	20	30	120	121	121	121	121
Age (years)	1-4	35	0	0	2	2	5	20	30	45	60	60	60	60
Age (years)	5-11	82	0	0	0	2	5	15	30	60	90	121	121	121
Age (years)	12-17	82	0	0	2	4	10	20	45	60	90	121	121	121
Age (years)	18-64	747	0	2	3	5	10	20	40	120	121	121	121	121
Age (years)	> 64	96	0	1	3	5	10	20	30	60	120	121	121	121
Race	White	848	0	1	2	5	10	20	30	105	121	121	121	121
Race	Black	115	2	2	5	5	10	20	30	61	121	121	121	121
Race	Asian	18	0	0	0	0	5	10	20	121	121	121	121	121
Race	Some Others	16	5	5	5	5	12.5	20	45	121	121	121	121	121
Race	Hispanic	48	0	0	5	5	15	30	60	90	121	121	121	121
Hispanic	No	960	0	1	2	5	10	20	30	90	121	121	121	121
Hispanic	Yes	84	0	1	2	5	10	20	60	121	121	121	121	121
Employment	Full Time	506	1	2	3	5	10	20	45	121	121	121	121	121
Employment	Part Time	95	0	1	2	5	10	15	40	90	121	121	121	121
Employment	Not Employed	252	0	1	3	5	10	20	30	90	121	121	121	121
Education	< High School	96	0	1	2	5	10	22.5	52.5	121	121	121	121	121
Education	High School Graduate	318	0	2	5	5	10	20	30	120	121	121	121	121
Education	< College	208	0	2	3	5	10	20	35	121	121	121	121	121
Education	College Graduate	135	1	1	2	5	10	20	30	90	121	121	121	121
Education	Post Graduate	83	0	2	5	5	10	15	30	60	121	121	121	121
Census Region	Northeast	198	0	2	3	5	10	15	30	90	121	121	121	121
Census Region	Midwest	248	0	0	4	5	10	20	30	121	121	121	121	121
Census Region	South	399	0	1	2	5	10	20	40	90	121	121	121	121
Census Region	West	210	0	0	2	5	7	15	30	60	121	121	121	121
Day of Week	Weekday	662	0	1	3	5	10	20	30	90	121	121	121	121
Day of Week	Weekend	393	0	1	2	5	10	20	30	120	121	121	121	121
Season	Winter	267	0	2	2	5	10	20	30	60	121	121	121	121
Season	Spring	296	0	0	3	5	10	20	45	120	121	121	121	121
Season	Summer	299	0	0	3	5	10	20	30	90	121	121	121	121
Season	Fall	193	0	0	2	5	10	20	30	121	121	121	121	121
Asthma	No	960	0	1	2.5	5	10	20	30	90	121	121	121	121
Asthma	Yes	92	0	0	2	5	15	30	60	121	121	121	121	121
Angina	No	1032	0	1	2	5	10	20	30	95	121	121	121	121
Angina	Yes	19	0	0	0	5	15	30	30	121	121	121	121	121
Bronchitis/Emphysema	No	1005	0	1	2	5	10	20	30	90	121	121	121	121
Bronchitis/Emphysema	Yes	47	0	0	3	5	10	30	60	121	121	121	121	121

Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-35. Number of Minutes Spent (at home) Working or Being Near Open Flames Including Barbeque Flames (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		479	0	0	1	2	10	20	60	121	121	121	121	121
Gender	Male	252	0	0	1	2	10	20	60	121	121	121	121	121
Gender	Female	227	0	0	2	2	10	20	30	121	121	121	121	121
Age (years)	1-4	14	0	0	0	0	5	10	30	121	121	121	121	121
Age (years)	5-11	29	0	0	0	0	5	15	30	90	121	121	121	121
Age (years)	12-17	28	0	0	1	2	10	22.5	42.5	60	60	90	90	90
Age (years)	18-64	372	0	0	1	3	10	20	60	121	121	121	121	121
Age (years)	:> 64	31	2	2	2	4	5	17	30	120	121	121	121	121
Race	White	407	0	0	1	2	10	20	45	121	121	121	121	121
Race	Black	31	0	0	0	2	5	20	30	60	121	121	121	121
Race	Asian	5	5	5	5	5	20	40	121	121	121	121	121	121
Race	Some Others	8	10	10	10	10	11	22.5	60	121	121	121	121	121
Race	Hispanic	22	2	2	3	5	5	30	60	120	121	121	121	121
Hispanic	No	436	0	0	1	2	10	20	42.5	121	121	121	121	121
Hispanic	Yes	36	2	2	3	5	11	60	90	121	121	121	121	121
Employment	Full Time	262	0	0	1	2	10	20	60	121	121	121	121	121
Employment	Part Time	44	0	0	1	4	5	15	52.5	121	121	121	121	121
Employment	Not Employed	99	0	1	2	3	10	20	40	120	121	121	121	121
Education	< High School	27	2	2	2	3	5	20	60	121	121	121	121	121
Education	High School Graduate	130	0	0	2	3	10	20	60	121	121	121	121	121
Education	< College	92	0	0	1	2	10	30	90	121	121	121	121	121
Education	College Graduate	95	0	1	2	5	10	20	40	121	121	121	121	121
Education	Post Graduate	55	0	0	0	2	10	20	40	121	121	121	121	121
Census Region	Northeast	124	0	0	1	3	10	15	30	121	121	121	121	121
Census Region	Midwest	112	0	0	2	3	10	20	45	121	121	121	121	121
Census Region	South	149	0	0	1	2	5	20	60	121	121	121	121	121
Census Region	West	94	0	0	1	2	10	20	60	121	121	121	121	121
Day of Week	Weekday	284	0	0	1	3	10	15	30	121	121	121	121	121
Day of Week	Weekend	195	0	0	1	2	10	30	60	121	121	121	121	121
Season	Winter	142	0	0	0	2	10	20	60	121	121	121	121	121
Season	Spring	115	0	1	2	3	10	20	60	120	121	121	121	121
Season	Summer	137	0	0	2	3	10	20	45	121	121	121	121	121
Season	Fall	85	1	1	1	3	10	20	40	121	121	121	121	121
Asthma	No	443	0	0	1	2	10	20	45	121	121	121	121	121
Asthma	Yes	35	0	0	3	3	15	30	120	121	121	121	121	121
Angina	No	461	0	0	1	2	10	20	45	121	121	121	121	121
Angina	Yes	15	2	2	2	2	10	15	60	121	121	121	121	121
Bronchitis/Emphysema	No	461	0	0	1	2	10	20	45	121	121	121	121	121
Bronchitis/Emphysema	Yes	16	3	3	3	5	12.5	37.5	106	121	121	121	121	121

Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-36. Number of Minutes Spent Working or Being Near Excessive Dust in the Air (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		679	0	2	5	7	30	121	121	121	121	121	121	121
Gender	Male	341	1	2	5	8	30	121	121	121	121	121	121	121
Gender	Female	338	0	2	5	5	30	121	121	121	121	121	121	121
Age (years)	1-4	22	0	0	0	2	5	75	121	121	121	121	121	121
Age (years)	5-11	50	0	0.5	2	4	15	75	121	121	121	121	121	121
Age (years)	12-17	52	0	1	2	5	5	20	120	121	121	121	121	121
Age (years)	18-64	513	2	5	5	10	30	121	121	121	121	121	121	121
Age (years)	5 > 64	38	2	2	2	5	35	105.5	121	121	121	121	121	121
Race	White	556	0	2	5	8	30	121	121	121	121	121	121	121
Race	Black	66	1	3	5	5	20	121	121	121	121	121	121	121
Race	Asian	7	20	20	20	20	60	90	121	121	121	121	121	121
Race	Some Others	15	5	5	5	10	60	120	121	121	121	121	121	121
Race	Hispanic	29	3	3	5	7	20	121	121	121	121	121	121	121
Hispanic	No	611	0	2	5	5	30	121	121	121	121	121	121	121
Hispanic	Yes	57	0	3	3	10	30	121	121	121	121	121	121	121
Employment	Full Time	368	2	5	7	15	37.5	121	121	121	121	121	121	121
Employment	Part Time	66	0	2	5	5	20	120	121	121	121	121	121	121
Employment	Not Employed	122	0	2	5	8	30	121	121	121	121	121	121	121
Education	< High School	52	2	5	5	7	35	121	121	121	121	121	121	121
Education	High School Graduate	199	0	0	5	10	30	121	121	121	121	121	121	121
Education	< College	140	5	5	10	20	60	121	121	121	121	121	121	121
Education	College Graduate	82	1	2	5	15	30	121	121	121	121	121	121	121
Education	Post Graduate	76	3	5	5	10	37.5	121	121	121	121	121	121	121
Census Region	Northeast	138	0	0	5	5	20	121	121	121	121	121	121	121
Census Region	Midwest	145	2	2	5	10	30	121	121	121	121	121	121	121
Census Region	South	227	1	2	5	5	30	121	121	121	121	121	121	121
Census Region	West	169	0	3	5	10	30	120	121	121	121	121	121	121
Day of Week	Weekday	471	0	1	5	7	30	121	121	121	121	121	121	121
Day of Week	Weekend	208	2	2	5	5	30	121	121	121	121	121	121	121
Season	Winter	154	0	0	5	5	30	121	121	121	121	121	121	121
Season	Spring	193	0	1	3	5	20	121	121	121	121	121	121	121
Season	Summer	193	2	2	5	10	30	121	121	121	121	121	121	121
Season	Fall	139	3	5	5	10	30	121	121	121	121	121	121	121
Asthma	No	606	0	2	5	5	30	121	121	121	121	121	121	121
Asthma	Yes	73	0	3	5	10	30	121	121	121	121	121	121	121
Angina	No	662	0	2	5	7	30	121	121	121	121	121	121	121
Angina	Yes	15	3	3	3	30	60	121	121	121	121	121	121	121
Bronchitis/Emphysema	No	637	0	2	5	7	30	121	121	121	121	121	121	121
Bronchitis/Emphysema	Yes	41	0	0	5	5	30	121	121	121	121	121	121	121

Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-37. Range of the Number of Times an Automobile or Motor Vehicle was Started in a Garage or Carport at Specified Daily Frequencies by the Number of Respondents						
	Total N	Times/day				
		1-2	3-5	6-9	10+	Dk
Overall	2009	1321	559	78	17	34
Gender						
Male	939	588	290	40	7	14
Female	1070	733	269	38	10	20
Age(years)						
1-4	20	13	2	1	1	3
5-11	111	68	39	2	2	*
12-17	150	93	49	6	*	2
18-64	145	86	42	12	1	4
> 64	1287	840	367	50	12	18
	296	221	60	7	1	7
Race						
White	1763	1164	486	69	17	27
Black	110	70	31	4	*	5
Asian	46	34	10	2	*	*
Some Others	24	19	5	*	*	*
Hispanic	55	26	24	3	*	2
Refused	11	8	3	*	*	*
Hispanic						
No	1879	1239	519	74	17	30
Yes	111	68	35	4	*	4
DK	12	9	3	*	*	*
Refused	7	5	2	*	*	*
Employment						
*	398	241	127	20	3	7
Full Time	919	610	253	35	9	12
Part Time	149	93	48	4	2	2
Not Employed	536	372	129	19	3	13
Refused	7	5	2	*	*	*
Education						
*	427	262	134	21	4	6
< High School	84	59	17	2	1	5
High School Graduate	464	336	107	13	2	6
< College	440	304	107	20	5	4
College Graduate	326	201	106	10	2	7
Post Graduate	268	159	88	12	3	6
Census Region						
Northeast	289	213	64	8	2	2
Midwest	541	360	142	29	2	8
South	702	430	221	27	8	16
West	477	318	132	14	5	8
Day of Week						
Weekday	1383	903	386	63	11	20
Weekend	626	418	173	15	6	14
Season						
Winter	567	396	136	20	5	10
Spring	518	336	141	25	5	11
Summer	525	313	178	18	6	10
Fall	399	276	104	15	1	3
Asthma						
No	1861	1228	514	70	17	32
Yes	146	92	44	8	*	2
DK	2	1	1	*	*	*
Angina						
No	1959	1288	545	76	17	33
Yes	48	33	12	2	*	1
DK	2	*	2	*	*	*
Bronchitis/Emphysema						
No	1922	1266	532	74	17	33
Yes	84	54	25	4	*	1
DK	3	1	2	*	*	*

Note: "*" Signifies missing data; "DK" = respondent answered don't know; Refused - the respondent refused to answer; N = doer sample size.
Source: Tsang and Klepeis, 1996



Table 15-38. Range of the Number of Times Motor Vehicle Was Started with Garage Door Closed at Specified Daily Frequencies by the Number of Respondents						
	Times/day					
	Total N	None	1-2	3-5	6-9	Dk
Overall	2009	1830	99	26	2	52
Gender						
Male	939	860	41	15	*	23
Female	1070	970	58	11	2	29
Age (years)						
*	20	14	1	*	*	5
1-4	111	99	8	2	*	2
5-11	150	141	6	*	*	3
12-17	145	127	9	4	1	4
18-64	1287	1184	57	18	1	27
> 64	296	265	18	2	*	11
Race						
White	1763	1616	82	22	1	42
Black	110	95	6	2	1	6
Asian	46	41	4	*	*	1
Some Others	24	21	2	*	*	1
Hispanic	55	46	5	2	*	2
Refused	11	11	*	*	*	*
Hispanic						
No	1879	1714	92	23	2	48
Yes	111	97	7	3	*	4
DK	12	12	*	*	*	*
Refused	7	7	*	*	*	*
Employment						
*	398	360	22	5	1	10
Full Time	919	840	46	13	1	19
Part Time	149	137	6	2	*	4
Not Employed	536	488	24	5	*	19
Refused	7	5	1	1	*	*
Education						
*	427	387	23	6	1	10
< High School	84	74	2	1	*	7
High School Graduate	464	429	24	2	*	9
< College	440	399	24	8	1	8
College Graduate	326	299	12	6	*	9
Post Graduate	268	242	14	3	*	9
Census Region						
Northeast	289	270	10	5	1	3
Midwest	541	500	22	4	1	14
South	702	628	42	8	*	24
West	477	432	25	9	*	11
Day of Week						
Weekday	1383	1269	66	21	*	27
Weekend	626	561	33	5	2	25
Season						
Winter	567	509	32	9	1	16
Spring	518	470	29	3	*	16
Summer	525	476	23	11	*	15
Fall	399	375	15	3	1	5
Asthma						
No	1861	1696	92	23	1	49
Yes	146	132	7	3	1	3
DK	2	2	*	*	*	*
Angina						
No	1959	1785	96	26	2	50
Yes	48	43	3	*	*	2
DK	2	2	*	*	*	*
Bronchitis/Emphysema						
No	1922	1747	96	26	2	51
Yes	84	80	3	*	*	1
DK	3	3	*	*	*	*

Note: "*" Signifies missing data; "DK" = respondents answered don't know; N = doer sample size; Refused = the respondent refused to answer.
Source: Tsang and Klepeis, 1996



Table 15-39. Number of Minutes Spent at a Gas Station or Auto Repair Shop (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		967	1	2	3	4	5	6	10	30	90	121	121	121
Gender	Male	552	2	2	3	4	5	7	10	30	120	121	121	121
Gender	Female	414	0	1	2	3	5	5.5	10	15	30	121	121	121
Age (years)	1-4	29	0	0	0	0	5	5	10	20	60	121	121	121
Age (years)	5-11	42	2	2	2	3	5	5	10	15	15	120	120	120
Age (years)	12-17	57	1	3	3	5	5	5	10	20	30	60	121	121
Age (years)	18-64	760	1	2	3	4	5	5.5	10	30	120	121	121	121
Age (years)	> 64	67	0	2	3	4	5	10	15	15	40	120	120	120
Race	White	788	1	2	3	4	5	7.5	10	30	120	121	121	121
Race	Black	95	0	1	2	3	5	5	10	15	15	20	120	120
Race	Asian	13	2	2	2	2	5	5	10	10	10	10	10	10
Race	Some Others	22	5	5	5	5	5	5	12	20	30	30	30	30
Race	Hispanic	42	0	0	3	4	5	10	15	25	30	121	121	121
Hispanic	No	875	1	2	3	4	5	6	10	30	120	121	121	121
Hispanic	Yes	82	0	2	2	3	5	8	10	20	35	121	121	121
Employment	Full Time	542	1	2	3	4	5	7	10	30	121	121	121	121
Employment	Part Time	107	2	3	4	5	5	10	10	30	120	121	121	121
Employment	Not Employed	186	1	1	3	4	5	10	10	20	40	120	120	121
Education	< High School	70	0	2	3	4.5	5	10	30	121	121	121	121	121
Education	High School Graduate	293	1	2	3	5	5	8	15	30	121	121	121	121
Education	< College	213	1	2	2	4	5	8	10	15	60	121	121	121
Education	College Graduate	143	2	2	3	4	5	5	10	15	30	121	121	121
Education	Post Graduate	106	1	2	3	3	5	7	10	15	35	56	90	120
Census Region	Northeast	167	1	2	3	5	5	5	10	30	121	121	121	121
Census Region	Midwest	246	0	2	2	3	5	8	10	30	120	121	121	121
Census Region	South	348	0	1	3	4	5	6.5	10	20	45	120	121	121
Census Region	West	206	2	2	3	4	5	8	10	20	70	121	121	121
Day of Week	Weekday	634	1	2	3	4	5	7	10	30	121	121	121	121
Day of Week	Weekend	333	1	1	3	4	5	5	10	15	30	120	121	121
Season	Winter	236	1	1	3	4	5	6	10	20	60	121	121	121
Season	Spring	232	2	2	3	5	5	7.5	15	30	120	121	121	121
Season	Summer	282	0	2	3	4	5	10	10	30	120	121	121	121
Season	Fall	217	1	2	2	3	5	5	10	15	35	121	121	121
Asthma	No	892	1	2	3	4	5	7	10	25	90	121	121	121
Asthma	Yes	74	0	2	2	3	5	5	10	30	120	121	121	121
Angina	No	947	1	2	3	4	5	6	10	30	90	121	121	121
Angina	Yes	17	3	3	3	4	10	10	15	15	121	121	121	121
Bronchitis/Emphysema	No	920	1	2	3	4	5	7	10	25	60	121	121	121
Bronchitis/Emphysema	Yes	45	2	2	2	3	5	5	15	120	120	121	121	121

Note: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-40. Number of Minutes Spent at Home While the Windows Were Left Open (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		1960	2	10	30	180	360	840	961	961	961	961	961	961
Gender	Male	893	5	10	30	180	360	840	961	961	961	961	961	961
Gender	Female	1067	2	10	30	119	360	840	961	961	961	961	961	961
Age (years)	1-4	99	0	1	10	180	180	600	961	961	961	961	961	961
Age (years)	5-11	159	3	10	20	60	360	600	961	961	961	961	961	961
Age (years)	12-17	101	2	5	24	180	360	600	961	961	961	961	961	961
Age (years)	18-64	1282	6	16	60	180	360	840	961	961	961	961	961	961
Age (years)	> 64	282	1	5	30	180	360	840	961	961	961	961	961	961
Race	White	1558	2	10	30	180	360	840	961	961	961	961	961	961
Race	Black	208	3	10	30	180	360	840	961	961	961	961	961	961
Race	Asian	47	10	10	16	180	360	600	961	961	961	961	961	961
Race	Some Others	44	1	1	60	90	180	600	961	961	961	961	961	961
Race	Hispanic	80	2	20	30	60	360	600	961	961	961	961	961	961
Hispanic	No	1775	2	10	30	180	360	840	961	961	961	961	961	961
Hispanic	Yes	156	20	20	30	180	180	840	961	961	961	961	961	961
Employment	Full Time	822	5	15	30	180	360	840	961	961	961	961	961	961
Employment	Part Time	190	1	7	30	60	180	840	961	961	961	961	961	961
Employment	Not Employed	576	5	10	60	180	360	840	961	961	961	961	961	961
Education	< High School	163	1	6	30	90	360	840	961	961	961	961	961	961
Education	High School Graduate	542	2	10	60	180	360	840	961	961	961	961	961	961
Education	< College	408	5	15	30	119	360	840	961	961	961	961	961	961
Education	College Graduate	247	15	15	60	100	360	840	961	961	961	961	961	961
Education	Post Graduate	216	10	10	30	180	360	840	961	961	961	961	961	961
Census Region	Northeast	498	3	10	30	119	360	840	961	961	961	961	961	961
Census Region	Midwest	390	5	10	60	180	360	840	961	961	961	961	961	961
Census Region	South	494	1	6	30	90	360	600	961	961	961	961	961	961
Census Region	West	578	2	10	30	180	360	840	961	961	961	961	961	961
Day of Week	Weekday	1285	3	10	30	180	360	840	961	961	961	961	961	961
Day of Week	Weekend	675	2	10	30	119	360	840	961	961	961	961	961	961
Season	Winter	308	1	2	10	24	180	360	961	961	961	961	961	961
Season	Spring	661	10	20	60	180	360	600	961	961	961	961	961	961
Season	Summer	680	10	30	180	180	600	961	961	961	961	961	961	961
Season	Fall	311	3	5	30	60	180	600	961	961	961	961	961	961
Asthma	No	1809	2	10	30	180	360	840	961	961	961	961	961	961
Asthma	Yes	145	5	10	60	118	360	840	961	961	961	961	961	961
Angina	No	1902	3	10	30	180	360	840	961	961	961	961	961	961
Angina	Yes	49	1	1	24	30	180	961	961	961	961	961	961	961
Bronchitis/Emphysema	No	1850	2	10	30	180	360	840	961	961	961	961	961	961
Bronchitis/Emphysema	Yes	100	5	15	35	180	480	961	961	961	961	961	961	961
Note: Values of "180", "360", "600", "840" and "961" for number of minutes signify that 2-4 hours, 4-8 hours, 8-12 hours, 12-16 hours, and more than 16 hours, respectively, were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis, 1996.														



Table 15-41. Number of Minutes the Outside Door Was Left Open While at Home (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		1170	0	1	5	10	60	180	600	600	721	721	721	721
Gender	Male	505	0	1	3	10	60	180	600	600	721	721	721	721
Gender	Female	665	1	1	5	10	60	180	600	600	721	721	721	721
Age (years)	1-4	68	0	0	2	10	30	180	360	721	721	721	721	721
Age (years)	5-11	109	0	1	3	10	60	180	600	600	600	721	721	721
Age (years)	12-17	79	0	1	3	5	60	180	360	600	721	721	721	721
Age (years)	18-64	718	1	1	3	10	60	180	600	600	721	721	721	721
Age (years)	> 64	180	1	1	10	20	180	360	600	721	721	721	721	721
Race	White	968	0	1	5	10	60	180	600	600	721	721	721	721
Race	Black	100	1	2.5	5.5	13	60	180	600	600	600	660.5	721	721
Race	Asian	23	1	1	2	60	180	360	600	600	721	721	721	721
Race	Some Others	22	1	1	1	15	30	180	600	600	721	721	721	721
Race	Hispanic	45	0	0	5	5	45	180	360	600	600	721	721	721
Hispanic	No	1073	0	1	3	10	60	180	600	600	721	721	721	721
Hispanic	Yes	81	0	1	5	10	45	180	360	600	600	721	721	721
Employment	Full Time	451	1	1	3	10	60	180	600	600	721	721	721	721
Employment	Part Time	93	0	3	5	15	60	180	600	600	721	721	721	721
Employment	Not Employed	362	1	1	5	10	60	360	600	600	721	721	721	721
Education	< High School	96	1	1	2	11	75	360	600	600	721	721	721	721
Education	High School Graduate	309	1	3	5	10	60	180	600	600	721	721	721	721
Education	< College	225	0	1	3	10	60	180	600	600	721	721	721	721
Education	College Graduate	150	0	0.5	1	15	60	180	600	600	721	721	721	721
Education	Post Graduate	124	2	2	3	5	30	180	600	600	721	721	721	721
Census Region	Northeast	223	1	2	5	10	90	180	600	600	721	721	721	721
Census Region	Midwest	221	0	0	2	10	60	180	600	600	721	721	721	721
Census Region	South	361	1	1	5	10	60	180	360	600	600	721	721	721
Census Region	West	365	0	1	5	15	60	180	600	600	721	721	721	721
Day of Week	Weekday	732	0	1	5	10	60	180	600	600	721	721	721	721
Day of Week	Weekend	438	1	1	5	10	60	180	600	600	721	721	721	721
Season	Winter	184	0	0	2	3	10	60	180	600	600	600	600	600
Season	Spring	407	1	1	5	20	180	360	600	600	721	721	721	721
Season	Summer	385	0	2	10	30	180	360	600	721	721	721	721	721
Season	Fall	194	1	1	2	10	30	180	360	600	600	600	600	600
Asthma	No	1072	0	1	5	10	60	180	600	600	721	721	721	721
Asthma	Yes	97	1	1	3	6	30	180	600	600	721	721	721	721
Angina	No	1133	0	1	5	10	60	180	600	600	721	721	721	721
Angina	Yes	36	1	1	3	10	104.5	360	360	600	721	721	721	721
Bronchitis/emphysema	No	1105	0	1	3	10	60	180	600	600	721	721	721	721
Bronchitis/emphysema	Yes	63	5	5	10	10	90	180	600	600	600	721	721	721

Note: Values of "180", "360", "600", and "721" for number of minutes signify that 2-4 hours, 4-8 hours, 8-12 hours, and over 12 hours, respectively, were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-42. Number of Times an Outside Door Was Opened in the Home at Specified Daily Frequencies by the Number of Respondents							
	Total N	Times/Day					DK
		1-2	3-5	6-9	10-19	20+	
Overall	1187	192	248	229	267	196	55
Gender							
Male	511	80	96	100	118	93	24
Female	676	112	152	129	149	103	31
Age (years)							
*	19	6	3	2	3	1	4
1-4	68	13	14	8	17	13	3
5-11	109	15	16	18	31	23	6
12-17	79	11	17	17	13	17	4
18-64	730	112	145	156	171	123	23
> 64	182	35	53	28	32	19	15
Race							
White	979	155	193	188	233	168	42
Black	103	22	28	21	12	14	6
Asian	23	1	9	4	6	2	1
Some Others	22	3	4	2	7	4	2
Hispanic	46	8	11	10	8	8	1
Refused	14	3	3	4	1	*	3
Hispanic							
No	1086	179	227	208	244	180	48
Yes	83	11	17	16	20	15	4
DK	7	*	2	1	3	1	*
Refused	11	2	2	4	*	*	3
Employment							
*	255	40	46	43	60	53	13
Full Time	458	79	98	95	104	72	10
Part Time	95	14	20	19	22	18	2
Not Employed	369	58	81	69	80	52	29
Refused	10	1	3	3	1	1	1
Education							
*	267	42	48	46	63	54	14
< High School	98	21	17	15	18	20	7
High School Graduate	318	48	66	65	71	54	14
< College	228	44	52	37	49	34	12
College Graduate	150	21	37	39	31	19	3
Post Graduate	126	16	28	27	35	15	5
Census Region							
Northeast	228	37	38	49	53	38	13
Midwest	225	44	54	39	50	33	5
South	365	59	81	69	71	66	19
West	369	52	75	72	93	59	18
Day of Week							
Weekday	746	116	167	156	167	106	34
Weekend	441	76	81	73	100	90	21
Season							
Winter	185	19	51	39	42	27	7
Spring	417	73	94	66	90	73	21
Summer	387	72	68	81	80	66	20
Fall	198	28	35	43	55	30	7
Asthma							
No	1087	175	228	211	245	179	49
Yes	99	16	20	18	22	17	6
DK	1	1	*	*	*	*	*
Angina							
No	1147	183	241	221	259	192	51
Yes	39	8	7	8	8	4	4
DK	1	1	*	*	*	*	*
Bronchitis/emphysema							
No	1121	179	230	216	258	186	52
Yes	64	12	18	12	9	10	3
DK	2	1	*	1	*	*	*

Note: * Signifies missing data; "DK" = respondent answered don't know; N = sample size; Refused = respondent refused to answer.
Source: Tsang and Klepeis, 1996



Table 15-43. Number of Minutes Spent Running, Walking, or Standing Alongside a Road with Heavy Traffic (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		401	0	1	2	2	5	15	30	60	121	121	121	121
Gender	Male	202	1	1	2	3	5	17.5	45	120	121	121	121	121
Gender	Female	198	0	0	1	2	5	10	30	60	120	121	121	121
Age (years)	1-4	12	1	1	1	2	4	7.5	30	60	60	60	60	60
Age (years)	5-11	20	1	1	1.5	2	5	6	12.5	25	60	90	90	90
Age (years)	12-17	27	0	0	2	2	4	5	30	60	90	120	120	120
Age (years)	18-64	304	0	1	1	2	5	15	30	90	121	121	121	121
Age (years)	> 64	31	2	2	2	4	5	20	45	60	121	121	121	121
Race	White	306	0	1	2	2	5	15	30	110	121	121	121	121
Race	Black	51	0	0	1	1	3	7	30	50	60	60	121	121
Race	Asian	10	3	3	3	4	5	7.5	15	17.5	20	20	20	20
Race	Some Others	7	2	2	2	2	5	10	45	121	121	121	121	121
Race	Hispanic	24	2	2	2	3	10	17.5	40	60	60	120	120	120
Hispanic	No	356	0	1	1	2	5	15	30	90	121	121	121	121
Hispanic	Yes	43	1	1	2	2	5	10	30	60	120	121	121	121
Employment	Full Time	214	0	1	1	2	5	15	30	120	121	121	121	121
Employment	Part Time	50	0	0.5	2	2	5	15	30	90	121	121	121	121
Employment	Not Employed	76	0	1	2	3	5.5	15	30	60	110	120	121	121
Education	< High School	18	4	4	4	5	6	10	15	30	121	121	121	121
Education	High School Graduate	106	1	1	2	2	5	15	60	121	121	121	121	121
Education	< College	84	0	0	1	3	5.5	20	40	120	121	121	121	121
Education	College Graduate	79	0	1	1	2	5	15	30	60	90	121	121	121
Education	Post Graduate	50	1	1	2	2	5	10	20	52.5	90	120	120	120
Census Region	Northeast	129	1	1	2	2	5	20	50	120	121	121	121	121
Census Region	Midwest	83	0	0	1	2	5	10	20	60	121	121	121	121
Census Region	South	105	0	0	1	2	5	15	30	90	121	121	121	121
Census Region	West	84	1	2	2	3	5	15	30	60	120	121	121	121
Day of Week	Weekday	303	0	0	2	2	5	15	30	60	120	121	121	121
Day of Week	Weekend	98	1	1	2	3	5	15	30	121	121	121	121	121
Season	Winter	104	0	0	1	2	4.5	10	20	60	110	121	121	121
Season	Spring	114	1	1	2	2	6	20	60	120	121	121	121	121
Season	Summer	104	0	1	2	2	5	10	30	60	121	121	121	121
Season	Fall	79	0	1	2	3	5	20	35	120	121	121	121	121
Asthma	No	370	0	1	2	2	5	15	30	60	121	121	121	121
Asthma	Yes	31	0	0	1	2	5	15	30	120	121	121	121	121
Angina	No	393	0	1	2	2	5	15	30	90	121	121	121	121
Angina	Yes	8	2	2	2	2	6.5	17.5	30	60	60	60	60	60
Bronchitis/Emphysema	No	378	0	1	1	2	5	15	30	60	121	121	121	121
Bronchitis/Emphysema	Yes	22	2	2	5	5	5	17.5	30	121	121	121	121	121
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis, 1996														



Table 15-44. Number of Minutes Spent in a Car, Van, Truck, or Bus in Heavy Traffic (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		1197	1	2	5	5	10	20	60	120	121	121	121	121
Gender	Male	534	1	2	4	5	10	20	60	120	121	121	121	121
Gender	Female	663	1	2	5	5	10	25	60	120	121	121	121	121
Age (years)	1-4	33	4	4	5	5	10	15	30	60	60	121	121	121
Age (years)	5-11	63	1	2	5	5	10	20	45	60	120	121	121	121
Age (years)	12-17	52	3	3	4	5	9	12.5	27.5	90	120	120	121	121
Age (years)	18-64	889	1	2	5	5	10	25	60	120	121	121	121	121
Age (years)	> 64	139	3	3	5	5	15	30	60	121	121	121	121	121
Race	White	959	1	2	4	5	10	25	60	120	121	121	121	121
Race	Black	133	2	3	5	5	10	20	40	90	120	121	121	121
Race	Asian	20	5	5	5	5	11	20	30	45	52.5	60	60	60
Race	Some Others	24	5	5	10	10	12.5	30	60	90	120	121	121	121
Race	Hispanic	55	1	2	5	5	10	20	60	120	121	121	121	121
Hispanic	No	1097	1	2	5	5	10	20	60	120	121	121	121	121
Hispanic	Yes	95	1	2	5	5	10	20	90	121	121	121	121	121
Employment	Full Time	659	1	2	5	5	10	30	60	120	121	121	121	121
Employment	Part Time	108	2	2	4	5	10	20	48.5	121	121	121	121	121
Employment	Not Employed	279	1	2	5	5	10	30	60	120	121	121	121	121
Education	< High School	81	0	3	5	10	10	20	40	121	121	121	121	121
Education	High School Graduate	352	1	2	5	5	10	30	60	120	121	121	121	121
Education	< College	276	1	2	3	5	15	30	60	120	121	121	121	121
Education	College Graduate	176	1	2	4	5	12.5	30	60	120	121	121	121	121
Education	Post Graduate	150	2	2	5	5	10	20	60	97.5	120	121	121	121
Census Region	Northeast	229	2	2	4	5	10	20	60	120	121	121	121	121
Census Region	Midwest	263	2	2	5	5	10	30	45	120	121	121	121	121
Census Region	South	429	1	2	5	5	10	30	60	120	121	121	121	121
Census Region	West	276	1	2	5	5	10	20	60	120	121	121	121	121
Day of Week	Weekday	927	1	2	5	5	10	20	60	120	121	121	121	121
Day of Week	Weekend	270	2	2	5	5	10	25	60	120	121	121	121	121
Season	Winter	286	1	2	5	5	10	20	60	120	121	121	121	121
Season	Spring	317	1	2	5	5	10	30	60	120	121	121	121	121
Season	Summer	312	1	3	5	5	10	30	60	120	121	121	121	121
Season	Fall	282	2	2	4	5	10	20	45	120	121	121	121	121
Asthma	No	1108	1	2	5	5	10	20	60	120	121	121	121	121
Asthma	Yes	89	2	2	5	5	10	30	60	121	121	121	121	121
Angina	No	1159	1	2	5	5	10	20	60	120	121	121	121	121
Angina	Yes	35	0	0	5	5	10	30	70	121	121	121	121	121
Bronchitis/emphysema	No	1130	2	2	5	5	10	20	60	120	121	121	121	121
Bronchitis/emphysema	Yes	64	1	1	2	5	10	27.5	51	120	121	121	121	121
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis, 1996														



Table 15-45. Number of Minutes Spent in a Parking Garage or Indoor Parking Lot (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		294	0	1	1	2	3	5	10	30	60	121	121	121
Gender	Male	138	1	1	1	2	4	5	15	60	121	121	121	121
Gender	Female	156	0	1	1	2	3	5	10	20	40	60	120	121
Age (years)	1-4	8	0	0	0	0	2	3.5	5	10	10	10	10	10
Age (years)	5-11	15	1	1	1	2	3	5	10	45	60	60	60	60
Age (years)	12-17	20	0	0	0.5	1.5	2	7.5	15	45	90.5	121	121	121
Age (years)	18-64	229	1	1	2	2	5	5	10	30	60	121	121	121
Age (years)	> 64	18	0	0	0	2	3	5	15	45	90	90	90	90
Race	White	208	1	1	2	2	3	5	10	30	60	121	121	121
Race	Black	34	0	0	1	1	5	5	15	20	30	30	30	30
Race	Asian	15	2	2	2	2	2	10	60	120	121	121	121	121
Race	Some Others	7	3	3	3	3	3	5	15	121	121	121	121	121
Race	Hispanic	28	1	1	1	2	4.5	10	20	60	120	121	121	121
Hispanic	No	251	0	1	1	2	3	5	10	30	60	120	121	121
Hispanic	Yes	39	1	1	1	3	5	10	30	121	121	121	121	121
Employment	Full Time	171	1	1	1	2	3	5	10	30	60	121	121	121
Employment	Part Time	23	2	2	5	5	5	5	10	30	60	121	121	121
Employment	Not Employed	58	0	1	1	2	4	10	20	40	120	121	121	121
Education	< High School	13	0	0	0	5	5	10	10	30	121	121	121	121
Education	High School Graduate	58	1	1	1	2	3	9.5	30	90	121	121	121	121
Education	< College	54	1	1	2	2	4	5	15	40	120	120	121	121
Education	College Graduate	72	1	1	2	2	4.5	5	10	15	60	120	121	121
Education	Post Graduate	50	1	1	2	2	5	5	10	12.5	20	40	60	60
Census Region	Northeast	53	2	2	2	2	5	6	10	30	90	121	121	121
Census Region	Midwest	59	0	0	1	2	3	5	10	30	60	121	121	121
Census Region	South	92	1	1	2	2	3.5	5	10	30	60	121	121	121
Census Region	West	90	0	1	1	1.5	4	5	15	45	60	121	121	121
Day of Week	Weekday	208	0	1	1	2	3	5	10	30	60	121	121	121
Day of Week	Weekend	86	1	1	2	2	5	7	15	30	60	121	121	121
Season	Winter	67	0	1	1	2	3	5	10	20	30	120	121	121
Season	Spring	78	0	1	1	2	3	5.5	15	60	120	121	121	121
Season	Summer	85	0	1	2	2	5	5	15	30	90	121	121	121
Season	Fall	64	1	1	2	2	4.5	5	10	30	45	121	121	121
Asthma	No	263	1	1	2	2	3	5	10	30	60	121	121	121
Asthma	Yes	30	0	0	1	1	4	7	10	30	121	121	121	121
Angina	No	291	0	1	1	2	4	5	10	30	60	121	121	121
Angina	Yes	2	3	3	3	3	3	46.5	90	90	90	90	90	90
Bronchitis/emphysema	No	281	0	1	1	2	3	5	10	30	60	121	121	121
Bronchitis/emphysema	Yes	12	2	2	2	5	5	5.5	10	60	120	120	120	120
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis, 1996														



Table 15-46. Number of Minutes Spent Walking Outside to a Car in the Driveway or Outside Parking Areas (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		3303	0	0	0	0	2	5	10	20	30	60	121	121
Gender	Male	1511	0	0	0	0	2	4	10	20	30	60	121	121
Gender	Female	1791	0	0	0	0	2	5	10	20	30	60	60	121
Age (years)	1-4	132	0	0	0	0	1.5	2	5	15	20	30	60	121
Age (years)	5-11	245	0	0	0	0	1	2	5	15	30	45	80	121
Age (years)	12-17	202	0	0	0	0	1	5	10	20	30	30	60	121
Age (years)	18-64	2303	0	0	0	0	2	5	10	20	30	60	120	121
Age (years)	> 64	373	0	0	0	1	2	5	10	15	30	30	88	121
Race	White	2756	0	0	0	0	2	5	10	20	30	60	120	121
Race	Black	279	0	0	0	0	1	3	5	10	20	30	45	88
Race	Asian	53	0	0	0	0	1	3	10	15	30	32	45	45
Race	Some Others	63	0	0	0	0	2	5	10	30	30	60	120	120
Race	Hispanic	127	0	0	1	1	2	5	10	20	60	120	121	121
Hispanic	No	3029	0	0	0	0	2	5	10	20	30	60	120	121
Hispanic	Yes	235	0	0	0	0	2	5	10	20	60	120	121	121
Employment	Full Time	1613	0	0	0	0	2	5	10	20	30	60	120	121
Employment	Part Time	312	0	0	0	1	2	5	10	20	45	120	121	121
Employment	Not Employed	785	0	0	0	0	2	5	10	20	30	60	60	121
Education	< High School	241	0	0	0	0	2	4	10	20	30	110	121	121
Education	High School Graduate	935	0	0	0	0	2	5	10	20	30	60	121	121
Education	< College	680	0	0	0	1	2	5	10	20	30	60	120	121
Education	College Graduate	445	0	0	0	0	2	5	10	20	30	60	60	121
Education	Post Graduate	381	0	0	0	1	2	5	10	15	25	30	120	121
Census Region	Northeast	680	0	0	0	0	2	5	10	15	30	60	90	121
Census Region	Midwest	763	0	0	0	1	2	5	10	15	30	60	120	121
Census Region	South	1149	0	0	0	0	2	4	10	20	30	60	90	121
Census Region	West	711	0	0	0	0	2	5	10	20	30	60	120	121
Day of Week	Weekday	2209	0	0	0	0	2	5	10	20	30	60	120	121
Day of Week	Weekend	1094	0	0	0	0	2	5	10	20	30	60	120	121
Season	Winter	855	0	0	0	0	1	4	10	15	30	30	100	121
Season	Spring	890	0	0	0	0	2	5	10	20	30	100	120	121
Season	Summer	903	0	0	0	0	2	4	10	20	30	60	60	121
Season	Fall	655	0	0	0	1	2	5	10	15	30	45	110	121
Asthma	No	3063	0	0	0	0	2	5	10	20	30	60	120	121
Asthma	Yes	234	0	0	0	1	2	5	10	15	30	120	121	121
Angina	No	3219	0	0	0	0	2	5	10	20	30	60	120	121
Angina	Yes	72	0	0	0	0	2	5	10	15	30	45	110	110
Bronchitis/Emphysema	No	3132	0	0	0	0	2	5	10	20	30	60	120	121
Bronchitis/Emphysema	Yes	162	0	0	0	0	2	5	10	20	30	110	121	121
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis, 1996														



Table 15-47. Number of Minutes Spent Running or Walking Outside Other Than to the Car (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		1273	1	1	3	5	15	45	120	121	121	121	121	121
Gender	Male	605	2	2	5	10	20	60	121	121	121	121	121	121
Gender	Female	668	0	1	2	5	15	30	116	121	121	121	121	121
Age (years)	1-4	82	3	3	5	10	30	120	121	121	121	121	121	21
Age (years)	5-11	149	4	5	5	10	30	120	121	121	121	121	121	21
Age (years)	12-17	110	5	5	5	10	15	60	121	121	121	121	121	121
Age (years)	18-64	772	0	1	2	5	15	30	120	121	121	121	121	121
Age (years)	5:> 64	143	1	1	2	5	15	30	60	121	121	121	121	121
Race	White	1051	1	1	3	5	15	45	121	121	121	121	121	121
Race	Black	111	0	1	3	5	15	35	120	121	121	121	121	121
Race	Asian	21	2	2	10	10	15	30	70	120	121	121	121	121
Race	Some Others	23	5	5	10	15	20	60	121	121	121	121	121	121
Race	5:hispanic	55	2	3	8	10	20	40	90	121	121	121	121	121
Hispanic	No	1156	1	1	3	5	15	45	120	121	121	121	121	121
Hispanic	Yes	99	1	2	2	10	20	60	121	121	121	121	121	121
Employment	Full Time	517	0	1	2	5	15	30	120	121	121	121	121	121
Employment	Part Time	112	1	2	2	5	15	30	90	121	121	121	121	121
Employment	Not Employed	300	1	1	3	5	15	30	120	121	121	121	121	121
Education	< High School	97	0	1	3	5	15	30	90	121	121	121	121	121
Education	High School Graduate	287	0	0	2	5	15	30	120	121	121	121	121	121
Education	< College	234	1	1	2	5	15	30	120	121	121	121	121	121
Education	College Graduate	153	1	2	5	10	20	45	120	121	121	121	121	121
Education	Post Graduate	138	1	1	3	5	15	37.5	90	121	121	121	121	121
Census Region	Northeast	265	1	1	3	5	20	45	120	121	121	121	121	121
Census Region	Midwest	286	1	2	5	5	15	40	121	121	121	121	121	121
Census Region	South	412	1	1	3	5	15	45	121	121	121	121	121	121
Census Region	West	310	1	1	3	5.5	15	45	120	121	121	121	121	121
Day of Week	Weekday	843	1	1	3	5	15	40	120	121	121	121	121	121
Day of Week	Weekend	430	1	2	4	5	20	60	121	121	121	121	121	21
Season	Winter	312	0	2	2	5	10	42.5	90	121	121	121	121	21
Season	Spring	403	1	2	4	10	20	60	121	121	121	121	121	121
Season	Summer	396	1	1	3	10	20	55	121	121	121	121	121	21
Season	Fall	162	1	1	2	5	15	30	120	121	121	121	121	121
Asthma	No	1162	1	1	3	5	15	45	120	121	121	121	121	21
Asthma	Yes	105	2	4	5	6	15	45	121	121	121	121	121	21
Angina	No	1240	1	1	3	5	15	45	120	121	121	121	121	121
Angina	Yes	25	1	1	5	5	15	45	121	121	121	121	121	121
Bronchitis/Emphysema	No	1204	1	1	3	5	15	45	120	121	121	121	121	121
Bronchitis/Emphysema	Yes	62	1	2	4	5	15	30	120	121	121	121	121	121
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Source: Tsang and Klepeis,1996														



Table 15-48. Number of Hours Spent Working for Pay (hours/week)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4896	0	0	0	12	33	40	50	60	61	61	61	61
Gender	Male	2466	0	0	0	18	40	40	53	61	61	61	61	61
Gender	Female	2430	0	0	0	6	28	40	43	55	60	61	61	61
Age (years)	1-4	0	*	*	*	*	*	*	*	*	*	*	*	*
Age (years)	5-11	0	*	*	*	*	*	*	*	*	*	*	*	*
Age (years)	12-17	14	0	0	0	1	9	18.5	24	26	31	31	31	31
Age (years)	18-64	4625	0	0	0	15	35	40	50	60	61	61	61	61
Age (years)	> 64	181	0	0	0	0	5	21	40	50	61	61	61	61
Race	White	3990	0	0	0	10	32	40	50	60	61	61	61	61
Race	Black	499	0	0	0	18	35	40	46	60	61	61	61	61
Race	Asian	76	0	0	0	7	36.5	40	50	61	61	61	61	61
Race	Some Others	87	0	0	0	0	30	40	50	60	61	61	61	61
Race	Hispanic	194	0	0	0	15	32	40	48	60	60	61	61	61
Hispanic	No	4494	0	0	0	12	33	40	50	60	61	61	61	61
Hispanic	Yes	341	0	0	0	8	32	40	50	60	61	61	61	61
Employment	Full Time	4094	0	0	0	30	40	40	50	60	61	61	61	61
Employment	Part Time	802	0	0	0	0	10	20	30	38	40	61	61	61
Employment	Not Employed	0	*	*	*	*	*	*	*	*	*	*	*	*
Education	< High School	308	0	0	0	1	21	40	48	61	61	61	61	61
Education	High School Graduate	1598	0	0	0	12	32	40	48	60	61	61	61	61
Education	< College	1251	0	0	0	15	30	40	50	60	61	61	61	61
Education	College Graduate	954	0	0	0	16	40	40	50	60	61	61	61	61
Education	Post Graduate	716	0	0	0	10	35	40	50	60	61	61	61	61
Census Region	Northeast	1096	0	0	0	14	32	40	50	60	61	61	61	61
Census Region	Midwest	1118	0	0	0	12	32	40	50	60	61	61	61	61
Census Region	South	1675	0	0	0	12	35	40	50	60	61	61	61	61
Census Region	West	1007	0	0	0	9	30	40	50	60	61	61	61	61
Day of Week	Weekday	3306	0	0	0	10	33	40	50	60	61	61	61	61
Day of Week	Weekend	1590	0	0	0	12	33	40	48	60	61	61	61	61
Season	Winter	1306	0	0	0	10	32	40	50	60	61	61	61	61
Season	Spring	1197	0	0	0	15	35	40	50	60	61	61	61	61
Season	Summer	1343	0	0	0	3	33	40	48	60	61	61	61	61
Season	Fall	1050	0	0	0	14.5	32	40	50	60	61	61	61	61
Asthma	No	4579	0	0	0	12	34	40	50	60	61	61	61	61
Asthma	Yes	302	0	0	0	9	30	40	48	60	61	61	61	61
Angina	No	4811	0	0	0	12	34	40	50	60	61	61	61	61
Angina	Yes	66	0	0	0	0	20	40	44	60	61	61	61	61
Bronchitis/Emphysema	No	4699	0	0	0	12	33	40	50	6	61	61	61	61
Bronchitis/Emphysema	Yes	182	0	0	0	6	30	40	48	60	61	61	61	61

Note: * Signifies missing data. A value of "61" for number of hours signifies that more than 60 hours were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of hours.
Source: Tsang and Klepeis, 1996.



Table 15-49. Number of Hours Spent Working for Pay Between 6PM and 6AM (hours/week)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4894	0	0	0	0	0	0	8	30	45	61	61	61
Gender	Male	2465	0	0	0	0	0	0	10	35	50	61	61	61
Gender	Female	2429	0	0	0	0	0	0	5	20	39	61	61	61
Age (years)	1-4	0	0	0	0	0	0	0	0	0	0	0	0	0
Age (years)	5-11	0	0	0	0	0	0	0	0	0	0	0	0	0
Age (years)	12-17	14	0	0	0	0	0	4.5	20	24	25	25	25	25
Age (years)	18-64	4623	0	0	0	0	0	0	8	30	42	61	61	61
Age (years)	> 64	181	0	0	0	0	0	0	0	20	61	61	61	61
Race	White	3989	0	0	0	0	0	0	8	25	40	61	61	61
Race	Black	499	0	0	0	0	0	0	10	40	61	61	61	61
Race	Asian	75	0	0	0	0	0	0	12	30	61	61	61	61
Race	Some Others	87	0	0	0	0	0	0	7	25	45	61	61	61
Race	Hispanic	194	0	0	0	0	0	0	15	35	48	61	61	61
Hispanic	No	4492	0	0	0	0	0	0	8	27	40	61	61	61
Hispanic	Yes	341	0	0	0	0	0	0	13	35	50	61	61	61
Employment	Full Time	4092	0	0	0	0	0	0	8	30	45	61	61	61
Employment	Part Time	802	0	0	0	0	0	0	6	20	35	61	61	61
Employment	Not Employed	0	0	0	0	0	0	0	0	0	0	0	0	0
Education	< High School	308	0	0	0	0	0	0	11	50	61	61	61	61
Education	High School Graduate	1597	0	0	0	0	0	0	8	35	50	61	61	61
Education	< College	1251	0	0	0	0	0	0	9	26	40	60	61	61
Education	College Graduate	953	0	0	0	0	0	0	8	20	40	61	61	61
Education	Post Graduate	716	0	0	0	0	0	0	7	20	30	61	61	61
Census Region	Northeast	1096	0	0	0	0	0	0	7	24	40	61	61	61
Census Region	Midwest	1118	0	0	0	0	0	0	10	30	42	61	61	61
Census Region	South	1674	0	0	0	0	0	0	7	30	48	61	61	61
Census Region	West	1006	0	0	0	0	0	0	10	30	47	61	61	61
Day of Week	Weekday	3306	0	0	0	0	0	0	8	30	48	61	61	61
Day of Week	Weekend	1588	0	0	0	0	0	0	7	28	40	61	61	61
Season	Winter	1305	0	0	0	0	0	0	8	28	40	61	61	61
Season	Spring	1197	0	0	0	0	0	0	8	30	48	61	61	61
Season	Summer	1342	0	0	0	0	0	0	9	30	48	61	61	61
Season	Fall	1050	0	0	0	0	0	0	7	25	40	61	61	61
Asthma	No	4578	0	0	0	0	0	0	8	30	45	61	61	61
Asthma	Yes	301	0	0	0	0	0	0	8	28	36	61	61	61
Angina	No	4809	0	0	0	0	0	0	8	30	44	61	61	61
Angina	Yes	66	0	0	0	0	0	0	7	36	40	61	61	61
Bronchitis/Emphysema	No	4697	0	0	0	0	0	0	8	30	43	61	61	61
Bronchitis/Emphysema	Yes	182	0	0	0	0	0	0	10	40	50	61	61	61

Note: A Value of "61" for number of hours signifies that more than 60 hours were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of hours.
Source: Tsang and Klepeis, 1996.



Table 15-50. Number of Hours Worked in a Week That Was Outdoors (hours/week)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4891	0	0	0	0	0	0	1	30	50	61	61	61
Gender	Male	2463	0	0	0	0	0	0	16	42	60	61	61	61
Gender	Female	2428	0	0	0	0	0	0	0	2	12	55	61	61
Age (years)	1-4	0	0	0	0	0	0	0	0	0	0	0	0	0
Age (years)	5-11	0	0	0	0	0	0	0	0	0	0	0	0	0
Age (years)	12-17	14	0	0	0	0	0	0	0	0	0	0	0	0
Age (years)	18-64	4621	0	0	0	0	0	0	1	30	50	61	61	61
Age (years)	> 64	181	0	0	0	0	0	0	2	29	60	61	61	61
Race	White	3986	0	0	0	0	0	0	2	30	50	61	61	61
Race	Black	499	0	0	0	0	0	0	0	25	48	61	61	61
Race	Asian	75	0	0	0	0	0	0	0	3	30	40	61	61
Race	Some Others	87	0	0	0	0	0	0	1	17	40	48	61	61
Race	Hispanic	194	0	0	0	0	0	0	2	30	50	61	61	61
Hispanic	No	4489	0	0	0	0	0	0	1	30	48	61	61	61
Hispanic	Yes	341	0	0	0	0	0	0	2	35	60	61	61	61
Employment	Full Time	4090	0	0	0	0	0	0	2	35	50	61	61	61
Employment	Part Time	801	0	0	0	0	0	0	0	15	30	61	61	61
Employment	Not Employed	0	0	0	0	0	0	0	0	0	0	0	0	0
Education	< High School	308	0	0	0	0	0	0	16.5	55	61	61	61	61
Education	High School Graduate	1594	0	0	0	0	0	0	6	40	60	61	61	61
Education	< College	1251	0	0	0	0	0	0	1	30	46	61	61	61
Education	College Graduate	953	0	0	0	0	0	0	0	20	35	50	61	61
Education	Post Graduate	716	0	0	0	0	0	0	0	4	15	60	61	61
Census Region	Northeast	1094	0	0	0	0	0	0	0	25	40	61	61	61
Census Region	Midwest	1117	0	0	0	0	0	0	0	30	50	61	61	61
Census Region	South	1674	0	0	0	0	0	0	2	32	55	61	61	61
Census Region	West	1006	0	0	0	0	0	0	2	33	50	61	61	61
Day of Week	Weekday	3305	0	0	0	0	0	0	1	32	50	61	61	61
Day of Week	Weekend	1586	0	0	0	0	0	0	1	30	48	61	61	61
Season	Winter	1305	0	0	0	0	0	0	0	25	50	61	61	61
Season	Spring	1195	0	0	0	0	0	0	2	30	50	61	61	61
Season	Summer	1341	0	0	0	0	0	0	2	36	50	61	61	61
Season	Fall	1050	0	0	0	0	0	0	0	30	45	61	61	61
Asthma	No	4576	0	0	0	0	0	0	1	30	50	61	61	61
Asthma	Yes	300	0	0	0	0	0	0	0	31	50	61	61	61
Angina	No	4806	0	0	0	0	0	0	1	30	50	61	61	61
Angina	Yes	66	0	0	0	0	0	0	4	35	50	61	61	61
Bronchitis/Emphysema	No	4694	0	0	0	0	0	0	1	30	50	61	61	61
Bronchitis/Emphysema	Yes	182	0	0	0	0	0	0	2	30	60	61	61	61

NOTE: A value of "61" for number of hours signifies that more than 60 hours were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of hours.
Source: Tsang and Klepeis, 1996



Table 15-51. Number of Times Floors Were Swept or Vacuumed at Specified Frequencies by the Number of Respondents								
	Total N	Number of Times						
		Almost Every Day	3-5/week	1-2/week	1-2/month	< Often	Never	DK
Overall	4663	921	1108	2178	373	48	10	25
Gender								
Male	2163	415	520	976	201	27	5	19
Female	2498	505	588	1201	172	21	5	6
Refused	2	1	0	1	0	0	0	0
Age (years)								
*	84	16	11	41	12	3	0	1
1-4	263	96	74	88	4	0	0	1
5-11	348	115	107	120	6	0	0	0
12-17	326	82	83	144	15	2	0	0
18-64	2972	524	723	1420	252	34	6	13
> 64	670	88	110	365	84	9	4	10
Race								
White	3774	641	879	1868	324	36	8	18
Black	463	167	115	150	19	5	2	5
Asian	77	11	15	39	8	3	0	1
Some Others	96	26	29	32	8	1	0	0
Hispanic	193	68	61	55	7	2	0	0
Refused	60	8	9	34	7	1	0	1
Hispanic								
No	4244	799	988	2035	345	43	9	25
Yes	347	106	107	110	21	3	0	0
DK	26	8	3	11	2	1	1	0
Refused	46	8	10	22	5	1	0	0
Employment								
*	926	290	267	342	24	2	0	1
Full Time	2017	291	486	1018	184	27	2	9
Part Time	379	82	82	177	34	1	0	3
Not Employed	1309	256	263	626	127	18	8	11
Refused	32	2	10	15	4	0	0	1
Education								
*	1021	314	285	384	31	4	0	3
< High School	399	110	91	162	20	6	2	8
High School Graduate	1253	269	302	591	69	12	3	7
< College	895	130	223	438	93	8	2	1
College Graduate	650	64	132	346	93	9	3	3
Post Graduate	445	34	75	257	67	9	0	3
Census Region								
Northeast	1048	236	230	484	83	8	2	5
Midwest	1036	156	249	527	86	10	2	6
South	1601	376	403	707	93	11	2	9
West	978	153	226	460	111	19	4	5
Day of Week								
Weekday	3156	631	765	1458	248	33	5	16
Weekend	1507	290	343	720	125	15	5	9
Season								
Winter	1264	268	309	557	105	15	2	8
Spring	1181	217	286	560	96	12	3	7
Summer	1275	251	312	596	94	13	1	8
Fall	943	185	201	465	78	8	4	2
Asthma								
No	4287	821	1013	2030	351	39	10	23
Yes	341	95	88	133	17	7	0	1
DK	35	5	7	15	5	2	0	1
Angina								
No	4500	892	1080	2098	352	44	10	24
Yes	125	21	23	63	16	2	0	0
DK	38	8	5	17	5	2	0	1
Bronchitis/emphysema								
No	4424	871	1064	2063	349	44	9	24
Yes	203	45	39	99	17	2	1	0
DK	36	5	5	16	7	2	0	1

Note: * Signifies missing data; DK = respondent answered don't know; N = sample size; Refused = respondent refused to answer.
Source: Tsang and Klepeis, 1996



Table 15-52. Number of Days Since the Floor Area in the Home Was Swept or Vacuumed by the Number of Respondents																
	Number of Days since That Area Was Swept-vacuumed															
	Total N	0	Swept- Vacuumed Yes/day	1	2	3	4	5	6	7	8	10	14	>2 Weeks	Dk	
Overall	9386	8112	550	278	189	85	63	31	17	26	2	1	5	16	11	
Gender																
Male	4294	3688	245	136	100	35	37	19	8	10	1	0	3	7	5	
Female	5088	4421	304	142	89	50	26	12	9	16	1	1	2	9	6	
Refused	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
Age (years)																
*	187	180	1	0	3	1	0	0	0	0	0	0	0	1	1	
1-4	499	67	199	93	54	24	19	17	9	7	0	1	2	6	1	
5-11	703	393	121	70	50	23	22	8	2	4	1	0	2	2	5	
12-17	589	533	30	12	6	3	0	0	1	2	0	0	0	2	0	
18-64	6059	5592	198	102	76	34	22	6	5	13	1	0	1	5	4	
> 64	1349	1347	1	1	0	0	0	0	0	0	0	0	0	0	0	
Race																
White	7591	6586	398	232	152	72	55	29	14	24	2	1	5	13	8	
Black	945	825	72	18	17	7	3	1	2	0	0	0	0	0	0	
Asian	157	138	5	6	2	2	1	0	0	1	0	0	0	1	1	
Some Others	182	141	21	7	9	2	1	0	0	0	0	0	0	1	0	
Hispanic	385	300	52	15	9	2	2	0	1	1	0	0	0	1	2	
Refused	126	122	2	0	0	0	1	1	0	0	0	0	0	0	0	
Hispanic																
No	8534	7421	460	248	170	80	57	29	15	24	2	1	5	14	8	
Yes	702	549	88	29	17	5	4	2	2	2	0	0	0	1	3	
Dk	47	42	1	1	1	0	1	0	0	0	0	0	0	1	0	
Refused	103	100	1	0	1	0	1	0	0	0	0	0	0	0	0	
Employment																
*	1773	974	349	175	112	50	41	25	12	13	1	1	4	9	7	
Full Time	4096	3826	96	64	50	21	18	6	4	6	1	0	0	4	0	
Part Time	802	741	28	10	8	6	2	0	0	4	0	0	1	1	1	
Not Employed	2644	2502	77	29	18	8	2	0	1	3	0	0	0	1	3	
Refused	71	69	0	0	1	0	0	0	0	0	0	0	0	1	0	
Education																
*	1968	1162	353	175	114	50	41	25	12	13	1	1	4	10	7	
< High School	834	793	24	13	2	1	0	0	0	0	0	0	0	0	1	
High School Graduate	2612	2447	76	39	26	9	7	1	2	0	1	0	0	2	2	
< College	1801	1681	55	25	18	10	6	0	1	3	0	0	0	2	0	
College Graduate	1247	1155	28	19	17	10	5	3	1	7	0	0	0	1	1	
Post Graduate	924	874	14	7	12	5	4	2	1	3	0	0	1	1	0	
Census Region																
Northeast	2075	1793	129	65	35	18	4	9	9	6	0	0	0	5	2	
Midwest	2102	1826	108	59	47	21	17	7	2	6	2	1	2	2	2	
South	3243	2805	193	87	75	26	27	8	3	8	0	0	2	5	4	
West	1966	1688	120	67	32	20	15	7	3	6	0	0	1	4	3	
Day of Week																
Weekday	6316	5487	366	160	125	57	51	18	13	15	2	1	4	11	6	
Weekend	3070	2625	184	118	64	28	12	13	4	11	0	0	1	5	5	
Season																
Winter	2524	2144	162	79	61	27	17	7	3	13	0	0	1	5	5	
Spring	2438	2112	121	90	48	19	19	9	7	4	0	0	2	5	2	
Summer	2536	2187	167	68	41	26	19	12	3	3	0	1	2	4	3	
Fall	1888	1669	100	41	39	13	8	3	4	6	2	0	0	2	1	
Asthma																
No	8629	7455	502	262	171	80	59	30	13	22	2	1	5	16	11	
Yes	694	596	48	15	17	5	4	1	4	4	0	0	0	0	0	
Dk	63	61	0	1	1	0	0	0	0	0	0	0	0	0	0	
Angina																
No	9061	7793	547	277	189	83	63	31	17	26	2	1	5	16	11	
Yes	250	246	2	1	0	1	0	0	0	0	0	0	0	0	0	
Dk	75	73	1	0	0	1	0	0	0	0	0	0	0	0	0	
Bronchitis/emphysema																
No	8882	7645	536	268	182	84	61	31	17	25	2	1	5	15	10	
Yes	433	397	13	10	7	1	2	0	0	1	0	0	0	1	1	
Dk	71	70	1	0	0	0	0	0	0	0	0	0	0	0	0	

Note: * Signifies missing data; DK = respondents answered don't know; N= sample size; Refused = respondent refused to answer.

Source: Tsang and Klepeis, 1996



Table 15-53. Number of Loads of Laundry Washed in a Washing Machine at Home by the Number of Respondents													
	Total N	Number of Loads/Day											
		1	2	3	4	5	6	7	8	9	10	>10	DK
Overall	1762	582	604	303	123	55	27	11	12	1	5	1	38
Gender													
Male	678	219	241	120	41	17	8	*	*	1	1	*	30
Female	1083	363	363	183	82	38	19	10	12	*	4	1	8
Refused	1	*	*	*	*	*	*	1	*	*	*	*	*
Age (years)													
*	30	9	14	2	3	1	*	*	*	*	*	*	1
1-4	109	29	36	24	12	5	2	*	*	*	1	*	*
5-11	141	38	55	28	8	6	2	1	*	1	1	*	1
12-17	127	39	52	22	10	1	1	1	1	*	*	*	1
18-64	1161	385	376	209	80	35	22	9	11	*	3	1	30
> 64	194	82	71	18	10	7	*	1	*	*	*	*	5
Race													
White	1511	513	519	254	101	48	23	11	12	1	3	*	26
Black	112	27	41	23	11	4	1	*	*	*	1	*	4
Asian	22	7	4	3	5	4	*	*	*	*	*	*	3
Some Others	31	8	12	5	1	1	*	*	*	*	*	*	3
Hispanic	68	18	24	15	5	2	2	*	*	*	1	*	1
Refused	18	9	4	3	*	*	*	*	*	*	*	1	1
Hispanic													
No	1615	536	556	271	115	50	24	11	12	1	4	*	35
Yes	126	38	42	26	8	5	3	*	*	*	1	*	3
DK	6	*	2	4	*	*	*	*	*	*	*	*	*
Refused	15	8	4	2	*	*	*	*	*	*	*	1	*
Employment													
*	369	102	143	71	29	12	5	1	1	1	2	*	2
Full Time	734	259	244	128	42	20	10	5	4	*	2	*	20
Part Time	160	58	53	23	10	8	3	*	1	*	*	*	4
Not Employed	482	158	158	79	41	15	8	5	6	*	1	1	10
Refused	17	5	6	2	1	*	1	*	*	*	*	*	2
Education													
*	413	118	160	77	32	12	6	1	1	1	2	*	3
< High School	133	44	44	22	10	4	3	2	*	*	*	*	4
High School Graduate	508	175	166	85	35	18	8	3	4	*	*	*	14
< College	321	105	101	61	25	9	3	2	5	*	2	1	7
College Graduate	212	83	68	32	11	8	4	*	1	*	*	*	5
Post Graduate	175	57	65	26	10	4	3	3	1	*	1	*	5
Census Region													
Northeast	367	111	146	57	23	13	7	2	1	*	*	*	7
Midwest	406	125	123	76	42	14	5	3	6	1	*	1	10
South	628	205	228	110	39	17	6	6	4	*	3	*	10
West	361	141	107	60	19	11	9	*	1	*	2	*	11
Day of Week													
Weekday	1172	418	409	194	62	29	17	7	7	1	1	1	26
Weekend	590	164	195	109	61	26	10	4	5	*	4	*	12
Season													
Winter	458	154	159	73	31	14	6	3	4	1	3	1	9
Spring	465	154	159	87	28	10	10	3	2	*	1	*	11
Summer	482	158	166	85	38	11	8	4	3	*	1	*	8
Fall	357	116	120	58	26	20	3	1	3	*	*	*	10
Asthma													
No	1615	548	545	274	105	50	27	11	12	1	5	1	36
Yes	140	31	56	28	18	5	*	*	*	*	*	*	2
DK	7	3	3	1	*	*	*	*	*	*	*	*	*
Angina													
No	1710	564	592	294	113	54	26	11	12	1	5	1	37
Yes	40	14	9	7	8	1	1	*	*	*	*	*	*
DK	12	4	3	2	2	*	*	*	*	*	*	*	1
Bronchitis/Emphysema													
No	1658	544	572	285	112	53	26	10	12	1	5	1	37
Yes	96	36	28	16	11	2	1	1	*	*	*	*	1
DK	8	2	4	2	*	*	*	*	*	*	*	*	*

Note: * Signifies missing data; "DK" = respondent answered don't know; N= sample size; Refused = respondent refused to answer.
Source: Tsang And Klepeis, 1996



Table 15-54. Number of Times Using a Dishwasher at Specified Frequencies by the Number of Respondents							
	Total N	Number of Times/Week					
		*	Almost Every Day	3-5/Week	1-2/Week	<1-2/Week	DK
Overall	2635	1	557	678	529	824	46
Gender							
Male	1235	*	259	282	247	417	30
Female	1399	1	298	396	282	406	16
Refused	1	*	*	*	*	1	*
Age (years)							
*	35	*	4	13	11	6	1
1-4	145	*	9	4	3	118	11
5-11	211	*	14	8	15	157	17
12-17	206	*	27	33	31	113	2
18-64	1718	*	438	512	397	360	11
> 64	320	1	65	108	72	70	4
Race							
White	2267	1	504	603	487	637	35
Black	163	*	19	32	19	90	3
Asian	54	*	7	8	7	31	1
Some Others	45	*	9	8	1	24	3
Hispanic	84	*	13	15	12	40	4
Refused	22	*	5	12	3	2	*
Hispanic							
No	2444	1	524	635	504	739	41
Yes	164	*	27	32	21	79	5
DK	11	*	2	2	2	5	*
Refused	16	*	4	9	2	1	*
Employment							
*	552	*	49	45	46	382	30
Full Time	1191	*	276	359	298	249	9
Part Time	204	*	48	70	46	38	2
Not Employed	678	1	181	200	136	155	5
Refused	10	*	3	4	3	*	*
Education							
*	593	*	55	51	55	400	32
< High School	124	1	29	27	26	41	*
High School Graduate	582	*	153	173	114	132	10
< College	560	*	144	181	117	117	1
College Graduate	446	*	105	134	126	80	1
Post Graduate	330	*	71	112	91	54	2
Census Region							
Northeast	538	*	133	144	95	159	7
Midwest	514	*	116	130	110	152	6
South	953	*	200	251	169	312	21
West	630	1	108	153	155	201	12
Day of Week							
Weekday	1768	1	378	466	341	549	33
Weekend	867	*	179	212	188	275	13
Season							
Winter	711	*	144	175	149	223	20
Spring	664	1	122	181	132	214	14
Summer	721	*	157	185	134	239	6
Fall	539	*	134	137	114	148	6
Asthma							
No	2439	1	521	622	492	765	38
Yes	189	*	35	54	35	58	7
DK	7	*	1	2	2	1	1
Angina							
No	2570	1	538	664	512	809	46
Yes	60	*	19	11	16	14	*
DK	5	*	*	3	1	1	*
Bronchitis/Emphysema							
No	2533	1	540	646	504	796	46
Yes	93	*	16	27	23	27	*
DK	9	*	1	5	2	1	*

Note: * Signifies missing data; "DK" = respondent answered don't know; N= sample size; Refused = respondent refused to answer.
Source: Tsang And Klepeis, 1996



Table 15-55. Number of Times Washing Dishes by Hand at Specified Frequencies by the Number of Respondents							
	Total N	Number of Times/Week					
		*	Almost Every Day	3-5/Week	1-2/Week	<1-2/Week	DK
Overall	3626	1	2600	490	326	197	12
Gender							
Male	1554	*	982	264	183	117	8
Female	2071	1	1618	225	143	80	4
Refused	1	*	*	1	*	*	*
Age (years)							
*	65	*	51	6	2	6	*
1-4	1	*	*	*	1	*	*
5-11	103	*	12	14	33	44	*
12-17	228	*	57	45	69	56	1
18-64	2642	1	1979	379	201	76	6
> 64	587	*	501	46	20	15	5
Race							
White	2928	1	2114	391	257	157	8
Black	385	*	261	61	40	21	2
Asian	61	*	48	6	3	4	*
Some Others	67	*	44	9	9	5	*
Hispanic	147	*	108	17	12	8	2
Refused	38	*	25	6	5	2	*
Hispanic							
No	3322	1	2383	454	296	178	10
Yes	258	*	185	32	25	14	2
DK	21	*	16	*	3	2	*
Refused	25	*	16	4	2	3	*
Employment							
*	328	*	71	57	102	97	1
Full Time	1765	*	1282	284	145	50	4
Part Time	349	*	270	44	17	15	3
Not Employed	1165	1	965	104	60	31	4
Refused	19	*	12	1	2	4	*
Education							
*	386	*	101	65	107	112	1
< High School	354	*	298	26	15	12	3
High School Graduate	1106	1	856	140	74	30	5
< College	796	*	606	116	57	16	1
College Graduate	591	*	445	86	47	13	*
Post Graduate	393	*	294	57	26	14	2
Census Region							
Northeast	832	*	636	90	60	43	3
Midwest	811	*	569	114	81	45	2
South	1214	1	840	175	124	70	4
West	769	*	555	111	61	39	3
Day of Week							
Weekday	2474	*	1759	335	236	136	8
Weekend	1152	1	841	155	90	61	4
Season							
Winter	985	*	691	138	90	63	3
Spring	902	1	648	117	85	46	5
Summer	987	*	705	132	92	55	3
Fall	752	*	556	103	59	33	1
Asthma							
No	3345	1	2407	455	290	183	9
Yes	263	*	179	33	34	14	3
DK	18	*	14	2	2	*	*
Angina							
No	3501	*	2499	475	321	194	12
Yes	105	1	86	11	5	2	*
DK	20	*	15	4	*	1	*
Bronchitis/Emphysema							
No	3438	1	2459	460	314	192	12
Yes	169	*	126	27	11	5	*
DK	19	*	15	3	1	*	*

Note: * Signifies missing data; "DK" = respondent answered don't know; N= sample size; Refused = respondent refused to answer.
Source: Tsang And Klepeis, 1996



Table 15-56. Number of Times for Washing Clothes in a Washing Machine at Specified Frequencies by the Number of Respondents								
	Total N	Number of Times/Week						
		*	Almost Every Day	3-5 /Day	1-2/week	<1/week	Never	DK
Overall	4663	404	566	1033	1827	331	465	37
Gender								
Male	2163	212	211	458	811	154	300	17
Female	2498	191	355	575	1015	177	165	20
Refused	2	1	*	*	1	*	*	*
Age (years)								
*	84	3	6	11	47	3	2	12
1-4	263	261	*	*	*	*	1	1
5-11	348	101	2	4	16	15	206	4
12-17	326	1	22	29	83	67	124	*
18-64	2972	31	489	832	1328	197	83	12
> 64	670	7	47	157	353	49	49	8
Race								
White	3774	316	499	883	1445	246	370	15
Black	463	39	33	72	207	52	55	5
Asian	77	4	1	12	39	13	8	*
Some Others	96	16	10	15	36	8	11	*
Hispanic	193	29	19	41	77	10	17	*
Refused	60	*	4	10	23	2	4	17
Hispanic								
No	4244	342	528	950	1674	307	424	19
Yes	347	59	31	69	130	20	38	*
DK	26	2	3	6	10	3	2	*
Refused	46	1	4	8	13	1	1	18
Employment								
*	926	366	23	32	97	76	327	5
Full Time	2017	21	305	569	929	119	66	8
Part Time	379	6	64	101	166	29	13	*
Not Employed	1309	10	170	326	628	105	58	12
Refused	32	1	4	5	7	2	1	12
Education								
*	1021	367	33	37	129	89	343	23
< High School	399	3	61	88	178	40	27	2
High School Graduate	1253	14	218	367	548	55	47	4
< College	895	3	126	261	432	51	19	3
College Graduate	650	12	78	171	321	57	9	2
Post Graduate	445	5	50	109	219	39	20	3
Census Region								
Northeast	1048	84	119	216	454	81	87	7
Midwest	1036	88	108	229	408	78	121	4
South	1601	147	229	376	557	97	182	13
West	978	85	110	212	408	75	75	13
Day of Week								
Weekday	3156	257	407	697	1217	232	320	26
Weekend	1507	147	159	336	610	99	145	11
Season								
Winter	1264	121	157	273	472	101	129	11
Spring	1181	122	135	259	464	82	113	6
Summer	1275	102	163	280	484	88	142	16
Fall	943	59	111	221	407	60	81	4
Asthma								
No	4287	371	522	951	1700	303	421	19
Yes	341	32	42	79	118	26	43	1
DK	35	1	2	3	9	2	1	17
Angina								
No	4500	403	555	993	1759	321	451	18
Yes	125	*	8	37	58	7	13	2
DK	38	1	3	3	10	3	1	17
Bronchitis/emphysema								
No	4424	397	549	979	1724	315	441	19
Yes	203	7	15	51	92	14	23	1
DK	36	*	2	3	11	2	1	17

Note: * Signifies missing data; "DK" = respondent answered don't know; N= sample size; Refused = respondent refused to answer.

Source: Tsang And Klepeis, 1996



Table 15-57. Number of Minutes Spent Playing on Sand or Gravel in a Day by the Number of Respondents

	Total N	Minutes/Day												
		.	0-0	0-10	10-20	20-30	30-40	40-50	50-60	70-80	80-90	90-100	110-120	121
Overall	700	41	348	42	34	57	4	12	66	2	9	2	27	56
Gender														
Male	352	18	189	20	13	25	*	7	32	*	7	1	10	30
Female	347	23	158	22	21	32	4	5	34	2	2	1	17	26
Refused/used	1	*	1	*	*	*	*	*	*	*	*	*	*	*
Age (years)														
*	3	1	*	*	1	*	*	*	*	*	*	*	*	1
1-4	216	13	115	15	9	15	2	3	15	1	5	*	7	16
5-11	200	7	96	11	12	14	*	5	25	1	2	1	6	20
12-17	41	1	23	1	2	4	*	3	3	*	*	1	3	3
18-64	237	18	112	15	10	24	2	4	23	*	2	*	11	16
> 64	3	1	2	*	*	*	*	*	*	*	*	*	*	*
Race														
White	568	34	274	37	30	49	2	9	57	1	8	2	21	44
Black	68	4	42	5	3	2	*	1	4	*	*	*	3	4
Asian	5	*	2	*	*	1	*	*	1	*	*	*	*	1
Some Others	16	2	9	*	*	*	2	*	1	*	*	*	*	3
Hispanic	41	*	19	*	1	5	*	2	3	1	1	*	3	4
Refused	2		2	*	*	*	*	*	*	*	*	*	*	*
Hispanic														
No	619	36	309	41	29	49	4	10	59	1	7	2	23	49
Yes	77	5	36	1	4	8	*	2	7	1	2	*	4	7
DK	3	*	2	*	1	*	*	*	*	*	*	*	*	*
Refused	1	*	1	*	*	*	*	*	*	*	*	*	*	*
Employment														
*	461	22	234	27	24	33	2	8	43	2	7	2	16	41
Full Time	149	9	73	7	7	16	1	3	17	*	2	*	6	8
Part Time	29	2	10	4	1	2	1	*	4	*	*	*	2	3
Not Employed	60	7	31	4	2	6	*	1	2	*	*	*	3	4
Refused	1	1	*	*	*	*	*	*	*	*	*	*	*	*
Education														
*	461	22	234	27	24	33	2	8	43	2	7	2	16	41
< High School	22	5	9	*	*	3	*	*	1	*	*	*	2	2
High School Graduate	73	4	39	4	1	8	1	*	6	*	1	*	2	7
< College	66	2	34	6	2	6	*	2	6	*	*	*	4	4
College Graduate	54	4	26	3	3	6	1	2	7	*	*	*	*	2
Post Graduate	24	4	6	2	4	1	*	*	3	*	1	*	3	*
Census Region														
Northeast	124	8	60	8	5	7	*	4	16	*	1	*	6	9
Midwest	128	6	69	8	6	14	*	2	11	*	2	*	3	7
South	273	17	133	18	12	25	3	3	30	*	3	2	6	21
West	175	10	86	8	11	11	1	3	9	2	3	*	12	19
Day of Week														
Weekday	445	35	216	27	22	40	3	10	37	2	6	2	17	28
Weekend	255	6	132	15	12	17	1	2	29	*	3	*	10	28
Season														
Winter	107	10	44	9	6	11	1	2	8	2	1	*	4	9
Spring	240	8	113	21	14	22	1	3	25	*	2	*	12	19
Summer	262	12	146	5	9	20	2	5	25	*	5	2	9	22
Fall	91	11	45	7	5	4	*	2	8	*	1	*	2	6
Asthma														
No	638	38	319	39	34	51	4	10	57	2	9	2	22	51
Yes	61	3	28	3	*	6	*	2	9	*	*	*	5	5
DK	1	*	1	*	*	*	*	*	*	*	*	*	*	*
Angina														
No	699	40	348	42	34	57	4	12	66	2	9	2	27	56
DK	1	1	*	*	*	*	*	*	*	*	*	*	*	*
Bronchitis/Emphysema														
No	679	41	339	41	34	54	4	12	62	2	9	2	26	53
Yes	21	*	9	1	*	3	*	*	4	*	*	*	1	3

Note: "*" = Signifies missing data. "DK" = Don't know. Refused = refused to answer. N = Doer sample size in specified range of number of minutes spent. A value of "121" for number of minutes signifies that more than 120 minutes were spent.
Source: Tsang and Klepeis, 1996.



Table 15-58. Number of Minutes Spent Playing in Sand or Gravel (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		659	0	0	0	0	0	0	45	120	121	121	121	121
Gender	Male	334	0	0	0	0	0	0	45	120	121	121	121	121
Gender	Female	324	0	0	0	0	0	1	60	120	121	121	121	121
Age (years)	1-4	203	0	0	0	0	0	0	30	120	121	121	121	121
Age (years)	5-11	193	0	0	0	0	0	3	60	121	121	121	121	121
Age (years)	12-17	40	0	0	0	0	0	0	45	120	121	121	121	121
Age (years)	18-64	219	0	0	0	0	0	0	45	120	121	121	121	121
Age (years)	> 64	2	0	0	0	0	0	0	0	0	0	0	0	0
Race	White	534	0	0	0	0	0	0	50	120	121	121	121	121
Race	Black	64	0	0	0	0	0	0	15	120	121	121	121	121
Race	Asian	5	0	0	0	0	0	30	60	121	121	121	121	121
Race	Some Others	15	0	0	0	0	0	0	60	121	121	121	121	121
Race	Hispanic	39	0	0	0	0	0	15	60	121	121	121	121	121
Hispanic	No	583	0	0	0	0	0	0	45	120	121	121	121	121
Hispanic	Yes	72	0	0	0	0	0	1.5	60	120	121	121	121	121
Employment	Full Time	140	0	0	0	0	0	0	45	105	121	121	121	121
Employment	Part Time	27	0	0	0	0	0	10	60	121	121	121	121	121
Employment	Not Employed	53	0	0	0	0	0	0	30	120	121	121	121	121
Education	< High School	17	0	0	0	0	0	0	60	121	121	121	121	121
Education	High School Graduate	69	0	0	0	0	0	0	30	121	121	121	121	121
Education	< College	64	0	0	0	0	0	0	37.5	120	121	121	121	121
Education	College Graduate	50	0	0	0	0	0	0	30	60	60	121	121	121
Education	Post Graduate	20	0	0	0	0	0	15	60	120	120	120	120	120
Census Region	Northeast	116	0	0	0	0	0	0	60	120	121	121	121	121
Census Region	Midwest	122	0	0	0	0	0	0	30	60	121	121	121	121
Census Region	South	256	0	0	0	0	0	0	45	120	121	121	121	121
Census Region	West	165	0	0	0	0	0	0	60	121	121	121	121	121
Day of Week	Weekday	410	0	0	0	0	0	0	40	120	121	121	121	121
Day of Week	Weekend	249	0	0	0	0	0	0	60	121	121	121	121	121
Season	Winter	97	0	0	0	0	0	5	45	120	121	121	121	121
Season	Spring	232	0	0	0	0	0	1	52.5	120	121	121	121	121
Season	Summer	250	0	0	0	0	0	0	60	120	121	121	121	121
Season	Fall	80	0	0	0	0	0	0	30	105	121	121	121	121
Asthma	No	600	0	0	0	0	0	0	45	120	121	121	121	121
Asthma	Yes	58	0	0	0	0	0	3	60	120	121	121	121	121
Angina	No	659	0	0	0	0	0	0	45	120	121	121	121	121
Bronch/emphys	No	638	0	0	0	0	0	0	45	120	121	121	121	121
Bronch/emphys	Yes	21	0	0	0	0	0	30	60	121	121	121	121	121
NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.														
Source: Tsang and Klepeis, 1996														



Table 15-59. Number of Minutes Spent Playing in Outdoors on Sand, Gravel, Dirt, or Grass When Fill Dirt Was Present by the Number of Respondents

	Total N	Minutes/Day											
		-	0-0	0-10	10-20	20-30	30-40	40-50	50-60	70-80	80-90	110-120	121
Overall	700	53	380	51	29	48	1	6	60	7	1	21	43
Gender													
Male	352	26	183	22	18	33	*	3	24	5	1	16	21
Female	347	27	196	29	11	15	1	3	36	2	*	5	22
Refused	1	*	1	*	*	*	*	*	*	*	*	*	*
Age (years)													
*	3	*	*	1	*	*	*	*	1	*	*	*	1
1-4	216	11	118	14	10	13	1	4	18	4	*	7	16
5-11	200	15	103	14	8	15	*	1	17	1	*	9	17
12-17	41	3	19	3	2	7	*	*	4	1	*	2	*
18-64	237	23	138	19	9	13	*	1	20	1	1	3	9
> 64	3	1	2	*	*	*	*	*	*	*	*	*	*
Race													
White	568	40	317	40	21	38	*	5	48	5	1	15	38
Black	68	8	33	5	2	6	*	1	7	1	*	3	2
Asian	5	*	2	*	*	2	*	*	*	*	*	*	1
Some Others	16	*	10	1	2	1	*	*	1	*	*	*	*
Hispanic	41	5	17	5	4	1	*	*	4	1	*	3	2
Refused	2	*	1	*	*	1	*	*	*	*	*	*	*
Hispanic													
No	619	45	345	42	21	44	1	6	54	5	1	17	38
Yes	77	8	32	9	8	3	*	*	6	2	*	4	5
DK	3	*	3	*	*	*	*	*	*	*	*	*	*
Refused	1	*	*	*	*	1	*	*	*	*	*	*	*
Employment													
*	461	29	240	32	20	35	1	5	40	6	*	18	35
Full Time	149	11	91	8	8	8	*	1	12	1	1	3	5
Part Time	29	4	17	3	*	2	*	*	2	*	*	*	1
Not Employed	60	8	32	8	1	3	*	*	6	*	*	*	2
Refused	1	1	*	*	*	*	*	*	*	*	*	*	*
Education													
*	461	29	240	32	20	35	1	5	40	6	*	18	35
< High School	22	5	9	*	*	3	*	*	2	*	*	1	2
High School Graduate	73	6	44	7	2	3	*	*	7	1	1	1	1
< College	66	4	38	7	3	3	*	1	7	*	*	*	3
College Graduate	54	3	35	3	4	4	*	*	3	*	*	*	2
Post Graduate	24	6	14	2	*	*	*	*	1	*	*	1	*
Census Region													
Northeast	124	6	70	13	3	5	*	*	18	1	*	2	6
Midwest	128	12	77	6	7	10	*	1	7	2	*	2	4
South	273	23	153	17	12	20	*	3	17	4	*	11	13
West	175	12	80	15	7	13	1	2	18	*	1	6	20
Day of Week													
Weekday	445	39	235	34	21	34	1	2	38	6	1	10	24
Weekend	255	14	145	17	8	14	*	4	22	1	*	11	19
Season													
Winter	107	14	51	6	6	5	*	2	7	2	*	2	12
Spring	240	10	134	17	10	20	1	2	21	2	*	10	13
Summer	262	17	143	19	12	19	*	1	25	2	1	8	15
Fall	91	12	52	9	1	4	*	1	7	1	*	1	3
Asthma													
No	638	48	354	47	25	41	1	5	50	7	1	19	40
Yes	61	5	25	4	4	7	*	1	10	*	*	2	3
DK	1	*	1	*	*	*	*	*	*	*	*	*	*
Angina													
No	699	53	380	51	29	48	1	6	60	6	1	21	43
DK	1	*	*	*	*	*	*	*	*	1	*	*	*
Bronchitis/Emphysema													
No	679	52	368	51	28	46	1	5	57	7	1	21	42
Yes	21	1	12	*	1	2	*	1	3	*	*	*	1

Note: "*" Signifies missing data. "DK" = Respondents answered don't know. Refused = Respondents refused to answer. N = Doer sample size in specified range of number of minutes spent. A value of "121" for number of minutes signifies that more than 120 minutes were spent.

Source: Tsang and Klepeis, 1996.



Table 15-60. Number of Minutes Spent Playing on Sand, Gravel, Dirt, or Grass When Fill Dirt Was Present (minutes/day)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		647	0	0	0	0	0	0	30	100	121	121	121	121
Gender	Male	326	0	0	0	0	0	0	30	120	121	121	121	121
Gender	Female	320	0	0	0	0	0	0	30	60	121	121	121	121
Age (years)	1-4	205	0	0	0	0	0	0	30	120	121	121	121	121
Age (years)	5-11	185	0	0	0	0	0	0	30	120	121	121	121	121
Age (years)	12-17	38	0	0	0	0	0	0.5	30	60	120	120	120	120
Age (years)	18-64	214	0	0	0	0	0	0	15	60	120	121	121	121
Age (years)	> 64	2	0	0	0	0	0	0	0	0	0	0	0	0
Race	White	528	0	0	0	0	0	0	30	120	121	121	121	121
Race	Black	60	0	0	0	0	0	0	30	74	120	121	121	121
Race	Asian	5	0	0	0	0	0	30	30	121	121	121	121	121
Race	Some Others	16	0	0	0	0	0	0	20	40	60	60	60	60
Race	Hispanic	36	0	0	0	0	0	1	60	120	121	121	121	121
Hispanic	No	574	0	0	0	0	0	0	30	90	121	121	121	121
Hispanic	Yes	69	0	0	0	0	0	1	30	120	121	121	121	121
Employment	Full Time	138	0	0	0	0	0	0	15	60	120	121	121	121
Employment	Part Time	25	0	0	0	0	0	0	10	60	60	121	121	121
Employment	Not Employed	52	0	0	0	0	0	0	10	60	60	121	121	121
Education	< High School	17	0	0	0	0	0	0	60	121	121	121	121	121
Education	High School Graduate	67	0	0	0	0	0	0	10	60	88	120	121	121
Education	< College	62	0	0	0	0	0	0	15	60	60	121	121	121
Education	College Graduate	51	0	0	0	0	0	0	15	30	60	121	121	121
Education	Post Graduate	18	0	0	0	0	0	0	0	60	120	120	120	120
Census Region	Northeast	118	0	0	0	0	0	0	30	60	121	121	121	121
Census Region	Midwest	116	0	0	0	0	0	0	20	60	120	121	121	121
Census Region	South	250	0	0	0	0	0	0	30	90	121	121	121	121
Census Region	West	163	0	0	0	0	0	1	60	121	121	121	121	121
Day of Week	Weekday	406	0	0	0	0	0	0	30	88	121	121	121	121
Day of Week	Weekend	241	0	0	0	0	0	0	30	120	121	121	121	121
Season	Winter	93	0	0	0	0	0	0	45	121	121	121	121	121
Season	Spring	230	0	0	0	0	0	0	30	105	121	121	121	121
Season	Summer	245	0	0	0	0	0	0	30	90	121	121	121	121
Season	Fall	79	0	0	0	0	0	0	10	60	120	121	121	121
Asthma	No	590	0	0	0	0	0	0	30	110	121	121	121	121
Asthma	Yes	56	0	0	0	0	0	10	60	60	121	121	121	121
Angina	No	646	0	0	0	0	0	0	30	100	121	121	121	121
Bronchitis/Emphysema	No	627	0	0	0	0	0	0	30	120	121	121	121	121
Bronchitis/Emphysema	Yes	20	0	0	0	0	0	0	37.5	60	90.5	121	121	121

NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996



Table 15-61. Range of the Time Spent Working in a Garden or Other Circumstances in a Month by the Number of Respondents																	
	Total N	Hours/Month															
		-	0-0	0-24	24-48	48-72	72-96	96-120	120-144	144-168	168-192	192-216	216-240	240-264	264-288	288-312	312-336
Overall	4663	91	2928	1312	145	81	28	23	1	10	5	12	8	3	1	1	14
Gender																	
Male	2163	38	1309	628	77	41	16	9	1	8	4	10	8	2	1	*	11
Female	2498	53	1618	683	68	40	12	14	*	2	1	2	*	1	*	1	3
Refused	2	*	1	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Age (years)																	
*	84	11	51	17	*	2	2	1	*	*	*	*	*	*	*	*	*
1-4	263	7	189	55	4	3	2	2	*	1	*	*	*	*	*	*	*
5-11	348	7	225	100	9	4	*	*	*	1	*	*	*	*	1	*	1
12-17	326	5	236	75	6	1	*	1	*	*	1	1	*	*	*	*	*
18-64	2972	37	1813	900	97	52	16	16	1	7	1	8	8	3	*	*	13
> 64	670	24	414	165	29	19	8	3	*	2	2	3	*	*	*	1	*
Race																	
White	3774	59	2303	1128	127	69	22	21	1	7	4	11	7	3	1	1	10
Black	463	9	351	77	9	8	3	*	*	2	1	*	1	*	*	*	2
Asian	77	1	50	25	1	*	*	*	*	*	*	*	*	*	*	*	*
Some Others	96	2	64	23	2	2	1	*	*	1	*	1	*	*	*	*	*
Hispanic	193	6	126	50	5	1	2	1	*	*	*	*	*	*	*	*	2
Refused	60	14	34	9	1	1	*	1	*	*	*	*	*	*	*	*	*
Hispanic																	
No	4244	65	2669	1206	135	73	25	20	1	8	5	12	8	3	1	1	12
Yes	347	11	218	94	9	6	3	3	*	1	*	*	*	*	*	*	2
DK	26	1	18	5	1	1	*	*	*	1	*	*	*	*	*	*	*
Refused	46	14	23	7	1	1	*	*	*	*	*	*	*	*	*	*	*
Employment																	
*	926	19	638	230	20	8	2	3	*	1	2	1	*	*	1	*	1
Full Time	2017	18	1235	600	68	35	12	9	1	7	1	10	8	2	*	*	11
Part Time	379	4	234	120	9	3	2	4	*	2	*	*	*	*	*	*	1
Not Employed	1309	39	808	354	48	35	12	7	*	2	2	1	*	1	*	1	1
Refused	32	11	13	8	*	*	*	*	*	*	*	*	*	*	*	*	*
Education																	
*	1021	34	699	246	22	8	3	3	*	1	2	1	*	*	1	*	1
< High School	399	18	263	86	11	9	4	4	*	1	1	1	*	*	*	*	2
High School	1253	25	770	355	41	22	9	7	*	5	2	8	4	*	*	1	4
Graduate	895	11	545	265	33	18	6	3	*	1	2	4	3	*	*	*	4
< College	650	1	406	200	19	12	3	5	*	1	1	*	*	*	*	*	2
College Graduate	445	2	245	160	19	12	3	1	1	1	*	*	*	*	*	*	1
Post Graduate																	
Census Region																	
Northeast	1048	17	714	259	24	12	4	8	*	3	*	2	1	*	1	*	3
Midwest	1036	23	687	273	19	18	5	3	*	*	*	3	*	3	*	*	2
South	1601	35	989	446	64	26	11	7	1	4	4	3	6	*	*	1	4
West	978	16	538	334	38	25	8	5	*	3	1	4	1	*	*	*	5
Day of Week																	
Weekday	3156	62	1982	890	96	54	18	15	1	8	3	6	7	2	*	1	11
Weekend	1507	29	946	422	49	27	10	8	*	2	2	6	1	1	1	*	3
Season																	
Winter	1264	9	1038	171	20	9	5	3	*	2	2	2	*	*	*	1	2
Spring	1181	29	614	434	50	20	8	7	*	4	1	4	5	2	*	*	3
Summer	1275	39	690	421	56	33	12	9	1	2	1	3	3	1	*	*	4
Fall	943	14	586	286	19	19	3	4	*	2	1	3	*	*	1	*	5
Asthma																	
No	4287	70	2697	1206	135	77	27	23	1	10	5	12	6	3	1	1	13
Yes	341	6	216	101	10	4	1	*	*	*	*	*	2	*	*	*	1
DK	35	15	15	5	*	*	*	*	*	*	*	*	*	*	*	*	*
Angina																	
No	4500	74	2825	1277	143	77	28	21	1	10	5	12	8	3	1	1	14
Yes	125	4	86	29	1	3	*	2	*	*	*	*	*	*	*	*	*
DK	38	13	17	6	1	1	*	*	*	*	*	*	*	*	*	*	*
Bronchitis/emphysema																	
No	4424	72	2766	1265	140	77	27	22	1	10	5	12	8	3	1	1	14
Yes	203	5	146	43	5	2	1	1	*	*	*	*	*	*	*	*	*
DK	36	14	16	4	*	2	*	*	*	*	*	*	*	*	*	*	*

Note: * Signifies missing data. DK = respondents answered don't know. Refused = respondents refused to answer. N = doer sample size in specified range of number of minutes spent.
Source: Tsang and Klepeis, 1996



Table 15-62. Number of Hours Spent Working with Soil in a Garden or Other Circumstances Working (hours/month)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		4572	0	0	0	0	0	0	3	15	40	88	160	320
Gender	Male	2125	0	0	0	0	0	0	3	20	50	150	230	320
Gender	Female	2445	0	0	0	0	0	0	2	12	30	60	90	320
Age (years)	1-4	256	0	0	0	0	0	0	1	7	20	60	120	150
Age (years)	5-11	341	0	0	0	0	0	0	2	10	20	50	60	320
Age (years)	12-17	321	0	0	0	0	0	0	1	5	10	40	60	200
Age (years)	18-64	2935	0	0	0	0	0	0	3	16	40	90	200	320
Age (years)	> 64	646	0	0	0	0	0	0	3	25	60	90	160	300
Race	White	3715	0	0	0	0	0	0	3	16	40	88	160	320
Race	Black	454	0	0	0	0	0	0	0	8	30	60	160	320
Race	Asian	76	0	0	0	0	0	0	1.5	6	15	24	40	40
Race	Some Others	94	0	0	0	0	0	0	2	15	60	150	200	200
Race	Hispanic	187	0	0	0	0	0	0	2	12	25	90	320	320
Hispanic	No	4179	0	0	0	0	0	0	3	15	40	80	180	320
Hispanic	Yes	336	0	0	0	0	0	0	2	15	32	90	120	320
Employment	Full Time	1999	0	0	0	0	0	0	4	20	45	144	240	320
Employment	Part Time	375	0	0	0	0	0	0	3	12	32	90	120	320
Employment	Not Employed	1270	0	0	0	0	0	0	3	20	45	64	100	320
Education	< High School	381	0	0	0	0	0	0	2	16	60	120	160	320
Education	High School Grad	1228	0	0	0	0	0	0	3.5	20	50	120	200	320
Education	< College	884	0	0	0	0	0	0	4	20	40	90	240	320
Education	College Grad.	649	0	0	0	0	0	0	3	16	40	70	100	320
Education	Post Grad.	443	0	0	0	0	0	0	5	20	40	61	90	320
Census Region	Northeast	1031	0	0	0	0	0	0	1	10	30	90	120	320
Census Region	Midwest	1013	0	0	0	0	0	0	2	10	30	60	120	320
Census Region	South	1566	0	0	0	0	0	0	3	18	40	90	180	320
Census Region	West	962	0	0	0	0	0	0	5	20	50	90	200	320
Day of Week	Weekday	3094	0	0	0	0	0	0	3	15	40	80	160	320
Day of Week	Weekend	1478	0	0	0	0	0	0	3	15	40	90	150	320
Season	Winter	1255	0	0	0	0	0	0	0	4	12	50	90	320
Season	Spring	1152	0	0	0	0	0	0	5	20	45	110	200	320
Season	Summer	1236	0	0	0	0	0	0	5	25	50	96	160	320
Season	Fall	929	0	0	0	0	0	0	3	10	30	88	180	320
Asthma	No	4217	0	0	0	0	0	0	3	15	40	90	160	320
Asthma	Yes	335	0	0	0	0	0	0	2	12	30	60	80	320
Angina	No	4426	0	0	0	0	0	0	3	15	40	88	160	320
Angina	Yes	121	0	0	0	0	0	0	2	7	24	60	110	120
Bronchitis/Emphysema	No	4352	0	0	0	0	0	0	3	15	40	88	180	320
Bronchitis/Emphysema	Yes	198	0	0	0	0	0	0	1	7	24	60	80	100
Note: * Signifies missing data. DK = respondents answered don't know. Refused = respondents refused to answer. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.														
Source: Tsang and Klepeis, 1996.														



Table 15-63. Range of Number of Minutes Spent Playing on Grass in a Day by the Number of Respondents

	Total N	Minutes/Day														
		-	0-0	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120	121-121
Overall	700	43	79	49	49	85	7	11	125	1	1	21	1	2	66	160
Gender																
Male	352	25	35	23	25	41	3	5	64	1	1	12	1	1	33	84
Female	347	18	44	26	24	44	4	6	61	*	*	9	*	1	33	75
Refused	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Age (years)																
*	3	*	*	1	1	*	*	*	*	*	*	*	*	*	*	1
1-4	216	10	24	19	21	25	1	4	35	*	1	8	*	1	18	49
5-11	200	15	24	10	10	19	2	3	38	1	*	8	1	*	20	49
12-17	41	2	5	1	2	8	*	1	8	*	*	1	*	*	8	5
18-64	237	16	26	18	15	32	4	3	44	*	*	4	*	1	20	54
> 64	3	*	*	*	*	1	*	*	*	*	*	*	*	*	*	2
Race																
White	568	36	65	40	39	58	7	9	98	1	1	17	1	1	56	139
Black	68	3	4	6	7	14	*	1	15	*	*	2	*	*	5	11
Asian	5	*	*	1	*	3	*	*	*	*	*	*	*	*	*	1
Some Others	16	*	4	*	1	1	*	*	4	*	*	1	*	*	2	3
Hispanic	41	4	5	2	2	9	*	*	8	*	*	1	*	1	3	6
Refused	2	*	1	*	*	*	*	1	*	*	*	*	*	*	*	*
Hispanic																
No	619	38	65	44	42	73	6	11	110	1	1	18	1	1	62	146
Yes	77	5	13	5	7	11	1	*	14	*	*	3	*	1	4	13
DK	3	*	*	*	*	1	*	*	1	*	*	*	*	*	*	1
Refused	1	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Employment																
*	461	27	54	31	34	52	3	8	81	1	1	17	1	1	46	104
Full Time	149	8	16	12	10	21	3	3	25	*	*	2	*	*	13	36
Part Time	29	2	5	1	1	6	*	*	4	*	*	2	*	*	3	5
Not Employed	60	5	4	5	4	6	1	*	15	*	*	*	*	1	4	15
Refused	1	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Education																
*	461	27	54	31	34	52	3	8	81	1	1	17	1	1	46	104
< High School	22	2	2	1	1	4	*	*	3	*	*	*	*	1	3	5
High School	73	4	8	9	4	6	1	1	9	*	*	3	*	*	6	22
Graduate	66	2	7	4	6	13	2	*	20	*	*	*	*	*	3	9
< College	54	3	5	3	4	6	1	1	10	*	*	*	*	*	6	15
College Graduate	24	5	3	1	*	4	*	1	2	*	*	1	*	*	2	5
Post Graduate																
Census Region																
Northeast	124	5	14	10	4	13	*	3	26	*	*	2	1	*	10	36
Midwest	128	8	7	10	10	15	1	3	23	*	1	4	*	*	15	31
South	273	21	22	20	25	30	5	4	52	1	*	11	*	2	23	57
West	175	9	36	9	10	27	1	1	24	*	*	4	*	*	18	36
Day of Week																
Weekday	445	33	55	35	32	55	3	7	82	*	1	15	1	1	38	87
Weekend	255	10	24	14	17	30	4	4	43	1	*	6	*	1	28	73
Season																
Winter	107	12	22	6	6	15	2	*	15	*	*	5	*	*	5	19
Spring	240	9	23	16	13	28	1	5	49	*	*	7	1	1	26	61
Summer	262	12	20	20	18	36	2	5	48	1	*	7	*	1	29	63
Fall	91	10	14	7	12	6	2	1	13	*	1	2	*	*	6	17
Asthma																
No	638	38	73	46	44	78	7	9	114	1	1	18	1	2	60	146
Yes	61	5	6	3	5	7	*	2	10	*	*	3	*	*	6	14
DK	1	*	*	*	*	*	*	*	1	*	*	*	*	*	*	*
Angina																
No	699	43	79	49	48	85	7	11	125	1	1	21	1	2	66	160
DK	1	*	*	*	1	*	*	*	*	*	*	*	*	*	*	*
Bronchitis/emphysema																
No	679	43	76	49	47	83	7	11	120	1	1	20	1	2	65	153
Yes	21	*	3	*	2	2	*	*	5	*	*	1	*	*	1	7

NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes. Refused = respondent refused to answer.
Source: Tsang and Klepeis, 1996.



Table 15-64. Number of Minutes Spent Playing on Grass (minutes/day)

Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		657	0	0	0	0	20	60	120	121	121	121	121	121
Gender	Male	327	0	0	0	0	20	60	121	121	121	121	121	121
Gender	Female	329	0	0	0	0	15	60	120	121	121	121	121	121
Age (years)	1-4	206	0	0	0	0	15	60	120	121	121	121	121	121
Age (years)	5-11	185	0	0	0	0	30	60	121	121	121	121	121	121
Age (years)	12-17	39	0	0	0	0	30	60	120	121	121	121	121	121
Age (years)	18-64	221	0	0	0	0	20	60	120	121	121	121	121	121
Age (years)	> 64	3	30	30	30	30	30	121	121	121	121	121	121	121
Race	White	532	0	0	0	0	20	60	121	121	121	121	121	121
Race	Black	65	0	0	0	3	20	58	90	121	121	121	121	121
Race	Asian	5	10	10	10	10	30	30	30	121	121	121	121	121
Race	Some Others	16	0	0	0	0	10	60	120	121	121	121	121	121
Race	Hispanic	37	0	0	0	0	30	60	110	121	121	121	121	121
Hispanic	No	581	0	0	0	0	20	60	121	121	121	121	121	121
Hispanic	Yes	72	0	0	0	0	10	35	100	121	121	121	121	121
Employment	Full Time	141	0	0	0	0	20	60	121	121	121	121	121	121
Employment	Part Time	27	0	0	0	0	15	60	120	121	121	121	121	121
Employment	Not Employed	55	0	0	0	5	23	60	121	121	121	121	121	121
Education	< High School	20	0	0	0	5	30	60	120.5	121	121	121	121	121
Education	High School Graduate	69	0	0	0	0	15	60	121	121	121	121	121	121
Education	< College	64	0	0	0	0	17.5	46.5	60	121	121	121	121	121
Education	College Graduate	51	0	0	0	1	30	60	121	121	121	121	121	121
Education	Post Graduate	19	0	0	0	0	25	60	121	121	121	121	121	121
Census Region	Northeast	119	0	0	0	0	30	60	121	121	121	121	121	121
Census Region	Midwest	120	0	0	0	7.5	30	60	121	121	121	121	121	121
Census Region	South	252	0	0	0	1	20	60	120	121	121	121	121	121
Census Region	West	166	0	0	0	0	10	45	120	121	121	121	121	121
Day of Week	Weekday	412	0	0	0	0	15	60	120	121	121	121	121	121
Day of Week	Weekend	245	0	0	0	1	30	60	121	121	121	121	121	121
Season	Winter	95	0	0	0	0	4	30	120	121	121	121	121	121
Season	Spring	231	0	0	0	1	30	60	121	121	121	121	121	121
Season	Summer	250	0	0	0	1.5	30	60	121	121	121	121	121	121
Season	Fall	81	0	0	0	0	10	35	120	121	121	121	121	121
Asthma	No	600	0	0	0	0	20	60	120	121	121	121	121	121
Asthma	Yes	56	0	0	0	0	22.5	60	120.5	121	121	121	121	121
Angina	No	656	0	0	0	0	20	60	120	121	121	121	121	121
Bronchitis/Emphysema	No	636	0	0	0	0	20	60	120	121	121	121	121	121
Bronchitis/Emphysema	Yes	21	0	0	0	0	30	60	121	121	121	121	121	121

NOTE: A value of "121" for number of minutes signifies that more than 120 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.

Source: Tsang and Klepeis, 1996



Table 15-65. Number of Times Swimming in a Month in Freshwater Swimming Pool by the Number of Respondents																	
	Total N	Times/Month															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overall	653	147	94	73	47	42	26	11	26	2	38	3	27	2	2	27	2
Gender																	
Male	300	62	47	37	20	16	17	5	9	2	16	2	13	1	*	16	1
Female	352	85	47	36	27	26	9	6	17	*	22	1	14	*	1	11	*
Refused	1	*			*		*		*		*						
Age (years)																	
*	8	2	2	1	1	1	1	*	*	*	*	*	*	*	*	*	*
1-4	63	11	14	7	3	3	4	1	3	1	4	*	2	1	*	2	*
5-11	100	16	15	7	9	6	4	2	4	1	7	*	5	*	*	11	2
12-17	84	21	13	7	4	8	4	2	3	1	8	*	1	*	*	2	*
18-64	360	86	48	50	27	22	11	5	14	*	18	3	15	1	1	10	*
> 64	38	11	2	1	3	2	2	1	2	*	1	*	4	*		2	*
Race																	
White	555	126	74	64	44	32	25	10	23	2	36	1	23	2	2	21	1
Black	30	8	7	1	*	2	*	*	1	*	*	2	*	*	*	2	1
Asian	13	3	2	2	*	1	*	1	1	*	1	*	1	*	*	*	*
Some Others	12	2	*	2	2	1	*	*	*	*	*	*	*	*	*	4	*
Hispanic	35	5	8	4	1	6	1	*	1	*	1	*	3	*	*	*	*
Refused	8	3	3	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hispanic																	
No	591	135	81	68	44	35	25	10	25	2	36	3	24	1	2	24	2
Yes	55	10	11	5	2	6	1	1	1	*	2	*	3	1	*	3	*
DK	2	*	*	*	1	1	*	*	*	*	*	*	*	*	*	*	*
Refused	5	2	2	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Employment																	
*	243	47	41	21	17	15	12	5	10	2	18	*	8	1	1	15	2
Full Time	240	56	38	38	15	13	10	3	8	*	10	1	8	1	1	6	*
Part Time	43	13	2	4	3	8	*	1	1	*	4	2	2	*	*	1	*
Not Employed	122	30	12	10	12	6	3	2	7	*	6	*	9	*	*	5	*
Refused	5	1	1	*	*	*	1	*	*	*	*	*	*	*	*	*	*
Education																	
*	257	51	43	21	18	17	12	5	11	2	19	*	8	1	1	15	2
< High School	16	2	2	3	*	3	1	1	1	*	*	1	*	*	*	*	*
High School Graduate	112	28	15	16	11	6	5	1	1	*	5	1	5	*	1	3	*
<College	104	29	11	11	2	9	2	3	7	*	4	1	7	*	*	3	*
College Graduate	93	22	12	14	10	2	3	3	2	*	5	*	6	*	*	4	*
Post Graduate	71	15	11	8	6	5	3	1	4	*	5	*	1	1	*	2	*
Census Region																	
Northeast	136	32	15	10	16	9	4	1	4	*	13	1	8	1	2	4	*
Midwest	130	35	21	17	8	6	7	2	4	*	9	1	4	1	*	6	*
South	235	46	36	29	13	15	12	7	10	2	10	2	8	*	*	9	2
West	152	34	22	17	10	12	3	1	8	*	6	*	7	*	*	8	*
Day of Week																	
Weekday	445	97	67	52	36	25	15	9	14	1	24	2	18	2	2	21	1
Weekend	208	50	27	21	11	17	11	2	12	1	14	1	9	*	*	6	1
Season																	
Winter	62	19	12	5	3	1	2	*	6	*	2	1	3	*	*	*	*
Spring	174	55	25	19	13	9	7	3	7	*	8	1	7	*	*	2	1
Summer	363	61	45	41	29	26	15	8	12	2	27	2	14	2	2	24	1
Fall	54	12	12	8	2	6	2	*	1	*	1	*	3	*	*	1	*
Asthma																	
No	590	132	81	67	43	38	25	10	24	2	37	3	25	2	2	22	2
Yes	56	14	11	5	4	3	1	1	2	*	1	*	2	*	*	5	*
DK	7	1	2	1	*	1	*	*	*	*	*	*	*	*	*	*	*
Angina																	
No	639	143	90	73	47	41	26	10	26	2	37	3	27	2	2	26	2
Yes	8	3	1	*	*	1	*	1	*	*	*	*	*	*	*	1	*
DK	6	1	3	*	*	*	*	*	*	*	1	*	*	*	*	*	*
Bronchitis/Emphysema																	
No	621	138	91	71	45	40	25	10	24	2	38	2	27	2	2	25	2
Yes	26	8	1	2	1	2	1	1	1	*	*	1	*	*	*	2	*
DK	6	1	2	*	1	*	*	*	1	*	*	*	*	*	*	*	*



Table 15-65. Number of Times Swimming in a Month in Freshwater Swimming Pool by the Number of Respondents (continued)																	
	Times/Month																
	18	20	23	24	25	26	28	29	30	31	32	40	42	45	50	60	DK
Overall	2	25	1	1	9	2	1	1	26	2	1	2	2	1	1	2	5
Gender																	
Male	*	10	*	*	4	2	1	*	10	2	1	1	1	*	*	*	4
Female	2	15	1	1	5	*	*	1	16	*	*	1	1	1	1	2	1
Refused	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Age (years)																	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1-4	*	2	*	*	*	*	*	1	2	*	1	*	*	*	*	*	*
5-11	*	3	*	1	2	*	*	*	5	*	*	*	*	*	1	*	*
12-17	1	4	*	*	*	1	*	*	2	*	*	*	*	*	*	1	*
18-64	*	15	1	*	7	1	1	*	15	2	*	2	1	1	*	*	3
> 64	1	1	*	*	*	*	*	*	2	*	*	*	1	*	*	1	1
Race																	
White	2	19	1	1	9	2	1	1	19	2	1	2	2	*	*	2	5
Black	*	3	*	*	*	*	*	*	3	*	*	*	*	*	*	*	*
Asian	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Some Others	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	*	*
Hispanic	*	1	*	*	*	*	*	*	3	*	*	*	*	1	*	*	*
Refused	*	1	*	*	*	*	*	*	1	*	*	*	*	*	*	*	*
Hispanic																	
No	2	23	1	1	9	2	1	1	20	2	1	2	2	*	1	2	4
Yes	*	1	*	*	*	*	*	*	6	*	*	*	*	1	*	*	1
DK	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Refused	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Employment																	
*	1	9	*	1	2	1	*	1	9	*	1	*	*	*	1	1	1
Full Time	*	8	*	*	5	*	1	*	10	2	*	2	1	1	*	*	2
Part Time	*	*	*	*	1	*	*	*	1	*	*	*	*	*	*	*	*
Not Employed	1	7	1	*	1	1	*	*	6	*	*	*	1	*	*	1	1
Refused	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Education																	
*	1	11	*	1	2	2	*	1	9	*	1	*	*	*	1	1	1
< High School	*	1	*	*	*	*	*	*	1	*	*	*	*	*	*	*	*
High School Graduate	*	6	*	*	1	*	*	*	4	*	*	*	1	*	*	1	1
< College	*	3	1	*	4	*	*	*	4	*	*	*	*	1	*	*	2
College Graduate	*	2	*	*	2	*	*	*	3	2	*	2	1	*	*	*	1
Post Graduate	1	2	*	*	*	*	1	*	5	*	*	*	*	*	*	*	*
Census Region																	
Northeast	*	7	*	*	2	1	*	*	2	1	*	1	1	*	*	*	1
Midwest	*	4	*	*	1	*	*	*	4	*	*	*	1	*	*	*	*
South	2	7	1	1	4	*	1	1	9	1	*	1	*	*	1	1	4
West	*	7	*	*	2	1	*	*	11	*	1	*	*	1	*	1	*
Day of Week																	
Weekday	1	18	1	1	7	1	1	*	19	*	1	1	*	1	1	2	4
Weekend	1	7	*	*	2	1	*	1	7	2	*	1	2	*	*	*	1
Season																	
Winter	1	3	*	*	*	1	1	*	*	1	*	*	1	*	*	*	*
Spring	*	8	*	*	2	*	*	*	3	*	*	*	1	*	1	1	2
Summer	1	10	1	1	7	1	*	1	21	1	1	2	*	1	*	1	3
Fall	*	4	*	*	*	*	*	*	2	*	*	*	*	*	*	*	*
Asthma																	
No	2	21	1	1	9	1	1	1	23	2	1	2	2	1	*	2	5
Yes	*	3	*	*	*	1	*	*	2	*	*	*	*	*	1	*	*
DK	*	1	*	*	*	*	*	*	1	*	*	*	*	*	*	*	*
Angina																	
No	2	24	1	1	9	2	1	1	26	2	1	2	1	1	1	2	5
Yes	*	*	*	*	*	*	*	*	*	*	*	*	1	*	*	*	*
DK	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bronchitis/Emphysema																	
No	2	22	1	1	9	2	1	1	23	2	1	2	2	1	1	2	4
Yes	*	2	*	*	*	*	*	*	3	*	*	*	*	*	*	*	1
DK	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note: * Signifies missing data; "DK" = respondent answered don't know; N= sample size; Refused = respondent refused to answer.

Source: Tsang And Klepeis, 1996



Table 15-66. Range of the Average Amount of Time Actually Spent in the Water by Swimmers by the Number of Respondents																
	Total N	Minutes/Month														
		.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	110-120	150-150	180-180	181-181
Overall	653	13	62	75	120	20	39	131	8	2	31	2	68	10	32	40
Gender																
Male	300	5	31	38	60	6	17	55	3	*	18	1	28	6	17	15
Female	352	7	31	37	60	14	22	76	5	2	13	1	40	4	15	25
Refused	1	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Age (years)																
*	8	1	2	1	2	*	*	*	*	*	*	*	2	*	*	*
1-4	63	3	5	12	12	1	4	8	*	*	2	*	7	1	3	5
5-11	100	5	3	2	12	5	4	25	*	*	7	*	16	2	11	8
12-17	84	1	3	7	10	2	6	15	*	1	8	1	14	4	6	6
18-64	360	3	45	50	75	8	22	74	8	*	13	1	26	3	12	20
> 64	38	*	4	3	9	4	3	9	*	1	1	*	3	*	*	1
Race																
White	555	7	53	67	105	18	36	109	8	2	24	2	59	9	26	30
Black	30	3	1	1	4	*	*	8	*	*	5	*	1	1	1	5
Asian	13	*	1	1	3	1	*	4	*	*	1	*	1	*	1	1
Some Others	12	*	1	2	1	*	*	3	*	*	*	*	2	*	1	2
Hispanic	35	1	5	4	4	1	2	7	*	*	1	*	4	*	4	2
Refused	8	2	1	*	3	*	1	*	*	*	*	*	1	*	*	*
Hispanic																
No	591	11	57	67	108	19	35	120	8	2	29	2	62	9	28	34
Yes	55	1	5	8	10	1	3	10	*	*	2	*	5	1	4	5
DK	2	*	*	*	*	*	*	1	*	*	*	*	*	*	*	1
Refused	5	1	*	*	2	*	1	*	*	*	*	*	1	*	*	*
Employment																
*	243	9	11	20	34	8	13	48	*	1	16	1	37	7	19	19
Full Time	240	3	31	29	51	4	14	51	3	*	8	*	21	3	10	12
Part Time	43	*	3	10	12	1	3	2	1	*	5	*	2	*	*	4
Not Employed	122	1	16	16	21	7	8	30	4	1	2	1	7	*	3	5
Refused	5	*	1	*	2	*	1	*	*	*	*	*	1	*	*	*
Education																
*	257	9	13	22	35	8	15	50	*	1	17	1	39	7	20	20
< High School	16	*	4	2	3	*	*	3	1	*	1	*	*	*	*	2
High School Graduate	112	1	12	10	16	5	8	26	1	1	5	1	11	*	5	10
< College	104	2	15	16	27	2	4	20	3	*	4	*	6	1	2	2
College Graduate	93	1	8	15	21	2	6	17	1	*	1	*	10	2	4	5
Post Graduate	71	*	10	10	18	3	6	15	2	*	3	*	2	*	1	1
Census Region																
Northeast	136	2	12	17	28	5	9	20	3	1	4	*	13	3	9	10
Midwest	130	3	10	17	27	4	8	24	1	*	6	*	17	1	7	5
South	235	8	20	19	37	6	15	56	*	*	13	1	26	4	12	18
West	152	*	20	22	28	5	7	31	4	1	8	1	12	2	4	7
Day of Week																
Weekday	445	11	45	52	82	14	23	87	7	2	19	*	46	8	22	27
Weekend	208	2	17	23	38	6	16	44	1	*	12	2	22	2	10	13
Season																
Winter	62	2	6	6	10	5	3	14	*	*	3	1	7	1	1	3
Spring	174	3	21	24	37	7	12	32	*	2	6	1	13	3	6	7
Summer	363	7	29	36	64	6	20	77	6	*	20	*	44	6	23	25
Fall	54	1	6	9	9	2	4	8	2	*	2	*	4	*	2	5
Asthma																
No	590	12	52	71	114	19	33	117	8	2	26	2	64	9	26	35
Yes	56	1	9	3	4	*	5	14	*	*	5	*	3	1	6	5
DK	7	*	1	1	2	1	1	*	*	*	*	*	1	*	*	*
Angina																
No	639	13	60	73	118	19	37	130	8	2	30	2	66	10	32	39
Yes	8	*	*	2	1	1	1	1	*	*	1	*	1	*	*	*
DK	6	*	2	*	1	*	1	*	*	*	*	*	1	*	*	1
Bronchitis/emphysema																
No	621	13	56	72	115	19	37	123	7	2	31	2	67	10	30	37
Yes	26	*	5	3	4	1	1	7	*	*	*	*	*	*	2	3
DK	6	*	1	*	1	*	1	1	1	*	*	*	1	*	*	*

Note: * Signifies missing data. DK = respondents answered don't know. Ref = respondents refused to answer. N = doer sample size in specified range of number of minutes spent. Values of 120, 150, and 180 for number of minutes signify that 2 hours, 2.5 hours, and 3 hours, respectively, were spent.
Source: Tsang and Klepeis, 1996.



Table 15-67. Number of Minutes Spent Swimming in a Month in Freshwater Swimming Pool (minutes/month)														
Category	Population Group	N	Percentiles											
			1	2	5	10	25	50	75	90	95	98	99	100
Overall		640	2	3	10	15	30	60	90	180	181	181	181	181
Gender	Male	295	3	4	8	10	30	45	90	180	181	181	181	181
Gender	Female	345	2	3	10	15	30	60	90	180	181	181	181	181
Age (years)	1-4	60	3	3	7.5	15	20	42.5	120	180	181	181	181	181
Age (years)	5-11	95	2	3	20	30	45	60	120	180	181	181	181	181
Age (years)	12-17	83	4	5	15	20	40	60	120	180	181	181	181	181
Age (years)	18-64	357	2	3	5	10	20	45	60	120	181	181	181	181
Age (years)	> 64	38	5	5	8	10	30	40	60	120	120	181	181	181
Race	White	548	2	3	10	15	30	45	90	180	181	181	181	181
Race	Black	27	10	10	15	30	60	60	150	181	181	181	181	181
Race	Asian	13	4	4	4	20	30	60	60	120	181	181	181	181
Race	Some Others	12	2	2	2	15	25	60	150	181	181	181	181	181
Race	Hispanic	34	3	3	5	10	20	60	120	180	181	181	181	181
Hispanic	No	580	2	3	10	15	30	60	90	180	181	181	181	181
Hispanic	Yes	54	3	5	5	15	30	52.5	120	180	181	181	181	181
Employment	Full Time	237	3	4	5	10	20	45	60	150	181	181	181	181
Employment	Part Time	43	2	2	5	15	20	30	90	120	181	181	181	181
Employment	Not Employed	121	2	2	8	10	20	45	60	120	180	181	181	181
Education	< High School	16	1	1	1	2	12.5	30	60.5	181	181	181	181	181
Education	High School Graduate	111	3	5	8	10	30	60	90	180	181	181	181	181
Education	< College	102	3	3	5	10	20	30	60	120	120	180	181	181
Education	College Graduate	92	2	3	10	15	22.5	42.5	60.5	150	181	181	181	181
Education	Post Graduate	71	5	10	10	10	20	30	60	70	120	180	181	181
Census Region	Northeast	134	4	8	10	15	30	45	120	180	181	181	181	181
Census Region	Midwest	127	5	5	10	15	30	45	90	150	180	181	181	181
Census Region	South	227	2	3	5	15	30	60	120	180	181	181	181	181
Census Region	West	152	2	3	5	10	20	45	61	120	180	181	181	181
Day of Week	Weekday	434	2	3	8	10	30	60	90	180	181	181	181	181
Day of Week	Weekend	206	4	5	10	15	30	60	90	180	181	181	181	181
Season	Winter	60	2	3	5	12.5	30	52.5	90	120	180.5	181	181	181
Season	Spring	171	2	4	5	10	20	40	60	120	180	181	181	181
Season	Summer	356	3	3	10	15	30	60	120	180	181	181	181	181
Season	Fall	53	2	10	10	10	20	45	70	180	181	181	181	181
Asthma	No	578	2	3	10	15	30	55	90	180	181	181	181	181
Asthma	Yes	55	2	3	4	10	30	60	120	180	181	181	181	181
Angina	No	626	2	3	10	15	30	60	90	180	181	181	181	181
Angina	Yes	8	15	15	15	15	25	42.5	75	120	120	120	120	120
Bronchitis/Emphysema	No	608	3	3	10	15	30	60	90	180	181	181	181	181
Bronchitis/Emphysema	Yes	26	2	2	5	5	15	42.5	60	181	181	181	181	181
Note: A Value of 181 for number of minutes signifies that more than 180 minutes were spent. N = doer sample size. Percentiles are the percentage of doers below or equal to a given number of minutes.														
Source: Tsang and Klepeis, 1996.														



Table 15-68. Statistics for 24-Hour Cumulative Number of Minutes Spent Working in a Main Job

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		3259	475.909	179.067	3.1367	1	1440	120	395	500	570	660	740	840	930
Gender	Male	1733	492.305	186.996	4.4919	1	1440	120	417	510	595	690	770	890	955
Gender	Female	1526	457.288	167.74	4.294	2	1440	120	390	485	543	620	690	785	850
Age (years)	*	80	472.375	183.298	20.4933	5	940	117.5	377.5	482.5	560	672.5	850	900	940
Age (years)	1-4	3	16.667	11.547	6.6667	10	30	10	10	10	30	30	30	30	30
Age (years)	5-11	10	150.4	185.796	58.754	2	550	2	10	67.5	264	447.5	550	550	550
Age (years)	12-17	38	293.158	180.681	29.3103	5	840	15	185	269	390	510	675	840	840
Age (years)	18-64	2993	484.822	173.083	3.1638	1	1440	140	420	505	570	660	745	840	930
Age (years)	> 64	135	366.148	208.656	17.9582	5	990	30	185	395	500	600	660	840	940
Race	White	2630	477.536	179.01	3.4906	1	1440	120	400	500	570	660	735	845	933
Race	Black	343	466.551	175.989	9.5025	5	1037	105	390	490	550	655	735	880	990
Race	Asian	57	464.053	177.305	23.4846	5	870	45	390	493	553	660	750	780	870
Race	Some Others	56	477.411	181.661	24.2754	45	855	75	415	510	570	680	765	780	855
Race	Hispanic	125	465.88	185.322	16.5757	2	840	95	360	485	580	720	750	825	840
Race	Refused	48	492.083	191.623	27.6584	50	957	120	410	507.5	575	810	840	957	957
Hispanic	No	2980	475.393	179.214	3.2829	1	1440	120	395	500	570	660	740	850	940
Hispanic	Yes	221	481.493	174.32	11.726	2	1106	150	405	505	580	670	740	825	840
Hispanic	DK	12	529.583	146.226	42.2117	295	757	295	425	554	610	710	757	757	757
Hispanic	Refused	46	468.522	201.347	29.687	10	860	115	350	497.5	585	780	818	860	860
Employment	*	47	257.915	202.833	29.5863	2	840	5	65	245	390	540	625	840	840
Employment	Full Time	2679	504.35	164.818	3.1843	1	1440	180	450	510	582	675	750	855	950
Employment	Part Time	395	364.587	159.361	8.0183	5	945	80	250	365	480	540	600	675	795
Employment	Not Employed	112	270.946	216.024	20.4123	4	990	9	82.5	245	377.5	600	675	795	870
Employment	Refused	26	513.577	155.456	30.4875	170	840	225	440	510	570	778	790	840	840
Education	*	108	343.037	211.879	20.3881	2	860	10	176.5	342.5	510	610	675	840	840
Education	< High School	217	473.502	216.729	14.7125	4	1440	85	360	485	568	710	795	940	1080
Education	High School Graduate	1045	482.03	180.638	5.5879	1	1440	120	405	500	565	670	765	890	979
Education	< College	795	475.585	174.025	6.172	2	1440	140	409	495	563	648	750	825	905
Education	College Graduate	627	484.526	159.816	6.3824	5	1005	120	424	510	570	645	720	765	815
Education	Post Graduate	467	483.041	169.574	7.847	1	945	125	400	510	590	660	730	810	860
Census Region	Northeast	721	475.964	180.84	6.7348	1	1440	120	405	495	570	669	740	890	950
Census Region	Midwest	755	477.008	182.167	6.6297	2	1440	120	395	495	570	660	750	825	940
Census Region	South	1142	478.231	176.739	5.23	1	1440	105	405	505	570	660	735	840	900
Census Region	West	641	470.415	177.801	7.0227	5	1080	120	390	500	570	657	730	850	880
Day Of Week	Weekday	2788	487.858	166.167	3.147	1	1440	155	425	505	570	660	740	840	930
Day Of Week	Weekend	471	405.18	229.526	10.576	2	1440	30	245	415	555	670	770	870	960
Season	Winter	864	475.784	172.828	5.8797	5	1440	150	390	495	570	660	735	835	900
Season	Spring	791	472.972	195.425	6.9485	1	1440	75	390	495	570	670	765	850	915
Season	Summer	910	477.185	179.907	5.9639	1	1215	120	400	500	565	670	750	890	979
Season	Fall	694	477.739	165.961	6.2998	2	1005	130	405	510	570	645	720	780	840
Asthma	No	3042	477.013	176.967	3.2086	1	1440	120	400	500	570	660	740	840	930
Asthma	Yes	195	453.354	204.227	14.625	5	1440	45	345	480	550	668	793	855	979
Asthma	DK	22	523.182	216.952	46.2542	170	1215	225	430	500	565	780	860	1215	1215
Angina	No	3192	475.735	178.389	3.1574	1	1440	120	395	500	570	660	740	840	930
Angina	Yes	44	472.068	200.68	30.2536	10	990	60	386	500	572.5	679	730	990	990
Angina	DK	23	507.391	230.296	48.02	80	1215	170	430	500	565	780	860	1215	1215
Bronchitis/Emphysema	No	3120	476.547	178.194	3.1902	1	1440	120	400	500	570	660	740	840	930
Bronchitis/Emphysema	Yes	116	446.991	189.381	17.5836	5	985	30	367.5	480	557.5	644	720	800	855
Bronchitis/Emphysema	DK	23	535.217	226.256	47.1777	170	1215	225	430	500	600	860	875	1215	1215

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.

Source: Tsang and Klepeis, 1996.



Table 15-69. Statistics for 24-Hour Cumulative Number of Minutes Spent in Food Preparation

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles									
								5	25	50	75	90	95	98	99		
All		4278	52.35	52.877	0.8084	1	555	5	20	35	65	115	150	210	265		
Gender	Male	1342	37.77	42.133	1.1501	1	480	5	13	30	50	80	105	150	210		
Gender	Female	2936	59.02	55.872	1.0311	1	555	5	25	45	75	120	155	224	272		
Age (years)	*	94	52	43.217	4.4575	5	215	5	20	40	60	110	150	195	215		
Age (years)	1-4	24	56.46	60.37	12.3229	5	240	5	22.5	30	75	150	180	240	240		
Age (years)	5-11	60	25.17	29.688	3.8327	1	120	2	5	11	30	60	107	120	120		
Age (years)	12-17	131	21.7	37.69	3.293	1	385	2	5	10	30	55	70	90	90		
Age (years)	18-64	3173	52.07	52.872	0.9386	1	555	5	20	35	65	110	145	210	265		
Age (years)	> 64	796	60.5	54.669	1.9377	1	525	5	25	45	80	120	150	240	270		
Race	White	3584	51.62	53.259	0.8896	1	555	5	19	35	65	110	145	210	265		
Race	Black	377	57.03	52.289	2.693	1	390	5	20	40	75	120	150	210	240		
Race	Asian	62	54	41.822	5.3115	2	210	5	20	50	70	105	130	175	210		
Race	Some Others	66	50.59	53.237	6.553	1	295	5	15	33.5	70	115	150	210	295		
Race	Hispanic	132	58.76	49.73	4.3285	2	315	5	23.5	52.5	79.5	110	135	225	285		
Race	Refused	57	53.14	49.297	6.5295	2	210	5	20	40	60	120	180	195	210		
Hispanic	No	3960	51.84	52.603	0.8359	1	555	5	20	35	65	111	145	205	255		
Hispanic	Yes	254	58.99	56.694	3.5573	2	420	5	20	45	75	120	155	240	315		
Hispanic	DK	20	54.95	53.2	11.8959	6	240	8	25	45	60	112.5	180	240	240		
Hispanic	Refused	44	58.61	53.296	8.0346	2	210	5	27.5	37.5	80	150	180	210	210		
Employment	*	210	27.17	40.549	2.7981	1	385	2	5	15	30	60	90	120	180		
Employment	Full Time	1988	45.46	46.66	1.0465	1	480	5	15	30	60	90	130	180	240		
Employment	Part Time	419	53.85	55.413	2.7071	2	520	5	20	40	65	105	125	205	255		
Employment	Not Employed	1626	63.62	57.743	1.432	1	555	5	29	45	90	125	170	240	275		
Employment	Refused	35	53.54	66.78	11.2879	2	340	2	20	30	60	120	195	340	340		
Education	*	291	31.71	42.621	2.4985	1	385	2	5	15	37	75	120	155	195		
Education	< High School	450	61.26	53.232	2.5094	1	555	5	30	45	90	120	150	197	225		
Education	High School Graduate	1449	58.84	56.665	1.4886	1	520	5	22	45	75	120	155	240	310		
Education	< College	954	51.99	52.238	1.6913	1	525	5	20	34.5	65	110	150	210	245		
Education	College Graduate	659	46.2	48.078	1.8728	1	515	5	15	30	60	100	125	180	224		
Education	Post Graduate	475	46.04	48.686	2.2339	1	375	5	15	30	60	95	135	200	270		
Census Region	Northeast	953	52.3	53.178	1.7226	1	480	5	20	40	60	110	140	205	255		
Census Region	Midwest	956	53.23	51.814	1.6758	1	520	5	20	35	65	120	150	210	265		
Census Region	South	1452	53.35	53.471	1.4032	1	555	5	15.5	35	70	120	150	195	245		
Census Region	West	917	49.91	52.72	1.741	1	515	5	15	31	60	105	135	225	265		
Day Of Week	Weekday	2995	50.05	49.979	0.9132	1	555	5	19	35	60	105	132	180	240		
Day Of Week	Weekend	1283	57.72	58.762	1.6405	1	420	5	20	40	75	130	180	240	300		
Season	Winter	1174	50.62	48.626	1.4192	1	480	5	18	35	65	110	135	195	240		
Season	Spring	1038	54.39	54.484	1.6911	1	525	5	20	38.5	70	120	150	224	265		
Season	Summer	1147	51.34	54.194	1.6002	1	555	5	20	35	60	110	137	208	300		
Season	Fall	919	53.54	54.535	1.7989	1	520	5	20	37	67	120	155	200	265		
Asthma	No	3948	52.02	53.176	0.8463	1	555	5	20	35	65	110	145	210	265		
Asthma	Yes	300	57.14	49.443	2.8546	1	272	5	20.5	45	75	120	160	199	240		
Asthma	DK	30	47.63	44.812	8.1815	2	195	5	10	32.5	60	117.5	120	195	195		
Angina	No	4091	52.18	52.97	0.8282	1	555	5	20	35	65	115	150	210	265		
Angina	Yes	149	56.81	48.238	3.9518	1	340	5	25	45	80	120	135	180	210		
Angina	DK	38	53.97	60.417	9.8009	2	240	2	10	32.5	60	120	240	240	240		
Bronchitis/Emphysema	No	4024	52.01	53.092	0.837	1	555	5	20	35	65	110	145	210	265		
Bronchitis/Emphysema	Yes	216	56.91	46.683	3.1764	3	240	5	20	45	85	120	150	198	210		
Bronchitis/Emphysema	DK	38	62.39	61.703	10.0096	2	240	2	20	42.5	90	150	240	240	240		

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-70. Statistics for 24-Hour Cumulative Number of Minutes Spent in Food Cleanup

Group Name	Group Code	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		1143	32.9948	40.379	1.1944	1	825	8	15	30	35	60	85	120	135
Gender	Male	204	27.4951	20.398	1.4282	1	180	10	15	25	30	50	60	80	85
Gender	Female	939	34.1896	43.44	1.4176	1	825	5	15	30	35	60	90	120	150
Age (years)	*	24	31.0417	28.013	5.7182	10	120	10	15	30	30	60	105	120	120
Age (years)	1-4	5	41.6	48.04	21.4839	3	120	3	15	15	55	120	120	120	120
Age (years)	5-11	9	28.4444	21.634	7.2113	1	75	1	15	30	30	75	75	75	75
Age (years)	12-17	28	26.75	20.573	3.8879	2	90	5	12.5	20	30	60	65	90	90
Age (years)	18-64	808	31.3317	27.053	0.9517	1	330	10	15	30	30	60	80	120	120
Age (years)	> 64	269	38.8067	67.357	4.1068	1	825	5	15	30	40	60	105	130	270
Race	White	976	32.9652	41.685	1.3343	1	825	8	15	30	35	60	84	120	130
Race	Black	82	33.2805	28.602	3.1585	5	180	10	15	30	30	65	90	120	180
Race	Asian	11	27.0909	22.047	6.6476	3	75	3	15	15	30	60	75	75	75
Race	Some Others	17	29.7059	34.797	8.4396	5	150	5	10	15	30	60	150	150	150
Race	Hispanic	42	35.6429	39.899	6.1565	3	255	10	15	30	40	50	60	255	255
Race	Refused	15	34	28.234	7.2899	5	90	5	10	30	60	90	90	90	90
Hispanic	No	1057	32.7351	40.353	1.2412	1	825	5	15	30	35	60	85	120	130
Hispanic	Yes	68	38.9265	44.877	5.4422	3	270	10	15	30	40	60	120	255	270
Hispanic	DK	6	24.1667	9.704	3.9616	10	35	10	15	27.5	30	35	35	35	35
Hispanic	Refused	12	26.6667	18.257	5.2705	5	60	5	12.5	25	32.5	60	60	60	60
Employment	*	39	28.1538	25.77	4.1265	1	120	2	15	15	30	65	90	120	120
Employment	Full Time	432	28.4236	22.686	1.0915	2	255	8	15	25	30	50	60	90	120
Employment	Part Time	134	28.903	21.322	1.842	3	150	10	15	25	30	60	60	95	100
Employment	Not Employed	528	38.2254	53.763	2.3398	1	825	5	15	30	45	60	105	120	250
Employment	Refused	10	28	21.884	6.9202	10	60	10	10	17.5	55	60	60	60	60
Education	*	59	27.2542	22.695	2.9546	1	120	3	10	20	30	60	75	90	120
Education	< High School	135	41.8593	58.603	5.0437	2	570	5	15	30	45	85	120	180	270
Education	High School Graduate	445	33.3483	45.827	2.1724	1	825	10	15	30	30	60	90	120	120
Education	< College	259	33.5907	30.026	1.8657	5	255	10	15	30	45	60	85	105	150
Education	College Graduate	142	27.7254	21.846	1.8333	1	180	10	15	22.5	30	50	60	90	120
Education	Post Graduate	103	28.9029	34.476	3.397	3	330	5	15	25	30	50	60	60	120
Census Region	Northeast	295	32.6169	28.347	1.6504	3	270	5	15	30	40	60	90	120	120
Census Region	Midwest	252	28.4643	22.677	1.4285	1	210	5	15	30	30	50	60	85	120
Census Region	South	343	35.9242	52.496	2.8345	1	825	10	15	30	40	65	90	120	180
Census Region	West	253	33.9763	46.539	2.9259	3	570	10	15	27	30	60	75	120	255
Day Of Week	Weekday	782	32.1957	43.579	1.5584	1	825	8	15	30	30	60	75	120	120
Day Of Week	Weekend	361	34.7258	32.371	1.7037	5	270	8	15	30	40	60	90	120	180
Season	Winter	303	33.1188	51.809	2.9763	1	825	8	15	30	30	60	85	120	120
Season	Spring	245	30.2939	26.108	1.668	2	250	10	15	30	30	60	65	105	120
Season	Summer	293	33.157	29.932	1.7487	2	270	5	15	30	40	60	90	120	135
Season	Fall	302	34.904	45.406	2.6128	1	570	8	15	30	40	60	90	120	180
Asthma	No	1047	32.7708	40.408	1.2488	1	825	6	15	30	35	60	85	120	120
Asthma	Yes	91	35.956	40.996	4.2975	2	255	8	15	30	40	60	90	250	255
Asthma	DK	5	26	20.736	9.2736	10	60	10	10	20	30	60	60	60	60
Angina	No	1092	32.9661	40.95	1.2392	1	825	8	15	30	35	60	85	120	150
Angina	Yes	45	32.3111	22.926	3.4175	5	120	5	15	30	45	60	60	120	120
Angina	DK	6	43.3333	41.793	17.062	10	120	10	10	30	60	120	120	120	120
Bronchitis/Emphysema	No	1065	31.77	28.195	0.864	1	330	8	15	30	35	60	80	120	120
Bronchitis/Emphysema	Yes	71	50.8592	118.417	14.0535	3	825	5	15	29	35	70	105	570	825
Bronchitis/Emphysema	DK	7	38.1429	41.119	15.5417	2	120	2	10	30	60	120	120	120	120

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-71. Statistics for 24-Hour Cumulative Number of Minutes Spent Cleaning House															
Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		1910	114.798	111.683	2.5555	1	810	10	30	80	150	255	335	465	525
Gender	Male	351	100.353	110.445	5.8951	1	810	10	30	60	120	240	310	400	495
Gender	Female	1559	118.051	111.737	2.8299	1	790	15	40	90	160	255	340	465	540
Age (years)	*	45	136.2	114.124	17.0127	10	480	10	55	105	180	297	320	480	480
Age (years)	1-4	11	74.091	69.42	20.9308	10	270	10	40	60	90	90	270	270	270
Age (years)	5-11	49	42.633	35.19	5.0271	1	180	5	20	30	53	90	120	180	180
Age (years)	12-17	67	78.746	79.357	9.695	1	300	5	20	55	105	240	240	285	300
Age (years)	18-64	1307	115.55	111.597	3.0868	1	810	15	30	85	150	270	350	435	510
Age (years)	> 64	431	125.132	118.341	5.7003	3	790	10	45	90	170	250	340	540	570
Race	White	1614	115.85	111.348	2.7716	1	790	10	35	85	155	255	330	435	540
Race	Black	139	108.712	106.826	9.0609	1	490	5	30	80	135	270	358	480	484
Race	Asian	32	97.656	101.091	17.8705	15	425	15	30	60	127.5	265	345	425	425
Race	Some Others	26	80.5	58.059	11.3864	5	210	10	35	60	115	185	190	210	210
Race	Hispanic	73	99.781	110.669	12.9528	5	548	10	30	60	120	210	345	470	548
Race	Refused	26	179.615	176.878	34.6886	10	810	20	30	135	240	390	465	810	810
Hispanic	No	1740	114.153	109.99	2.6368	1	790	10	30	80	150	255	330	435	525
Hispanic	Yes	134	110.134	115.754	9.9996	5	658	10	34	60	135	240	360	480	548
Hispanic	DK	14	136.071	131.591	35.1691	10	510	10	30	92.5	210	240	510	510	510
Hispanic	Refused	22	180.682	177.33	37.8069	10	810	20	45	138	240	340	390	810	810
Employment	*	128	64.453	66.811	5.9053	1	300	5	22.5	45	77.5	180	240	270	285
Employment	Full Time	673	100.944	99.87	3.8497	1	655	10	30	60	120	240	310	410	480
Employment	Part Time	195	119.415	115.568	8.276	1	660	15	45	85	175	265	390	480	540
Employment	Not Employed	901	129.566	118.009	3.9314	3	790	15	50	95	180	285	360	480	570
Employment	Refused	13	235	218.908	60.7142	10	810	10	120	180	255	450	810	810	810
Education	*	161	81.379	98.129	7.7337	1	810	5	28	45	100	225	265	300	375
Education	< High School	234	135.731	121.618	7.9504	3	715	10	50	115	180	297	390	540	560
Education	High School Graduate	665	121.899	118.814	4.6074	2	790	15	40	90	160	270	360	484	610
Education	< College	432	108.343	100.456	4.8332	1	570	10	30	85	149	240	315	420	470
Education	College Graduate	247	101.097	96.605	6.1468	1	525	15	30	60	127	240	315	390	465
Education	Post Graduate	171	126.105	118.897	9.0923	5	655	15	45	90	180	280	390	495	540
Census Region	Northeast	454	116.969	117.268	5.5037	2	790	10	30	90	164	240	330	480	655
Census Region	Midwest	406	114.086	111.049	5.5113	1	720	10	30	80	150	240	325	475	495
Census Region	South	636	114.36	112.921	4.4776	1	810	10	30	80	150	270	360	435	525
Census Region	West	414	113.79	104.234	5.1228	5	720	15	40	82.5	160	240	330	400	470
Day Of Week	Weekday	1287	108.319	108.542	3.0256	1	790	10	30	70	150	240	315	465	540
Day Of Week	Weekend	623	128.185	116.861	4.682	1	810	15	45	90	180	290	370	435	525
Season	Winter	464	105.554	98.348	4.5657	1	810	10	30	75	150	240	285	360	465
Season	Spring	445	114.202	109.757	5.203	3	720	15	30	75	165	240	340	465	525
Season	Summer	546	109.908	113.686	4.8653	1	690	10	30	71	135	245	365	465	548
Season	Fall	455	130.677	122.137	5.7259	1	790	15	45	90	180	300	390	480	560
Asthma	No	1764	114.32	110.119	2.6219	1	790	10	30	82.5	150	255	330	450	525
Asthma	Yes	133	114.699	117.523	10.1905	5	690	10	33	64	150	270	390	470	480
Asthma	DK	13	180.769	214.533	59.5007	10	810	10	45	120	240	340	810	810	810
Angina	No	1826	113.702	110.563	2.5874	1	790	14	30	80	150	255	330	465	525
Angina	Yes	70	120.371	103.11	12.324	5	394	5	30	90	190	262.5	320	370	394
Angina	DK	14	230	210.868	56.3569	10	810	10	120	210	255	480	810	810	810
Bronchitis/Emphysema	No	1791	113.894	111.025	2.6234	1	790	10	30	80	150	255	340	450	540
Bronchitis/Emphysema	Yes	100	118.11	104.363	10.4363	5	480	7.5	32.5	90	180	262.5	297.5	467.5	475
Bronchitis/Emphysema	DK	19	182.632	179.253	41.1234	5	810	5	50	150	240	340	810	810	810

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-72. Statistics for 24-Hour Cumulative Number of Minutes Spent in Outdoor Cleaning

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		692	145.9	121.42	4.616	2	720	25	60	120	180	300	405	510	570
Gender	Male	417	160.8	131.68	6.448	10	720	30	60	120	200	345	480	533	600
Gender	Female	275	123.2	99.98	6.029	2	635	10	60	90	160	268	330	390	465
Age (years)	*	13	210.5	157.91	43.796	30	600	30	112	140	250	395	600	600	600
Age (years)	1-4	4	138.3	116.84	58.421	30	285	30	45	119	231.5	285	285	285	285
Age (years)	5-11	12	104.6	62.921	18.164	30	210	30	58	80	165	190	210	210	210
Age (years)	12-17	20	142.3	96.274	21.527	30	385	32.5	75	127	157.5	300	372.5	385	385
Age (years)	18-64	479	147.4	125.22	5.721	2	690	15	60	120	180	310	435	520	570
Age (years)	> 64	164	139.9	112.13	8.756	2	720	30	60	120	172.5	300	350	480	510
Race	White	621	146.4	122.18	4.903	2	720	25	60	120	180	305	410	510	560
Race	Black	30	134.2	99.049	18.084	2	405	10	60	117.5	190	262.5	330	405	405
Race	Asian	6	65	27.568	11.255	30	90	30	30	77.5	85	90	90	90	90
Race	Some Others	12	163.5	97.091	28.028	39	380	39	90	157.5	187.5	290	380	380	380
Race	Hispanic	14	128.2	82.593	22.074	30	300	30	65	105	180	255	300	300	300
Race	Refused	9	206.7	213.95	71.317	30	600	30	60	120	300	600	600	600	600
Hispanic	No	652	145.6	121.19	4.746	2	720	25	60	120	180	300	405	510	560
Hispanic	Yes	26	115.3	76.402	14.984	10	300	25	60	116.5	145	240	255	300	300
Hispanic	DK	5	218	103.05	46.087	120	380	120	140	210	240	380	380	380	380
Hispanic	Refused	9	216.7	206.64	68.88	60	600	60	60	120	300	600	600	600	600
Employment	*	38	132.1	88.152	14.3	30	385	30	60	115	165	255	360	385	385
Employment	Full Time	315	147.7	123.2	6.942	4	690	30	60	120	180	300	435	530	560
Employment	Part Time	52	135.1	103.74	14.387	2	470	15	60	112.5	180	300	325	325	470
Employment	Not Employed	280	145.1	122.82	7.34	2	720	20	60	120	180	310	412.5	480	655
Employment	Refused	7	252.9	216.41	81.794	15	600	15	120	120	465	600	600	600	600
Education	*	46	136.8	115.99	17.101	2	600	30	60	112.5	165	285	360	600	600
Education	< High School	96	146	124.59	12.716	2	510	10	60	119.5	180	330	465	480	510
Education	High School Graduate	237	154.2	126.38	8.209	5	720	30	60	120	180	310	415	520	660
Education	< College	142	146.7	119.87	10.059	4	655	30	60	120	185	270	375	560	570
Education	College Graduate	99	137.3	124.43	12.505	10	555	15	60	95	175	325	475	533	555
Education	Post Graduate	72	134.3	103.25	12.168	10	495	30	60	120	165	290	345	465	495
Census Region	Northeast	144	135.2	113.42	9.451	5	600	15	60	110	185	300	330	510	555
Census Region	Midwest	155	131	111.34	8.943	4	655	15	60	95	150	270	360	510	560
Census Region	South	218	158.7	117.58	7.964	2	635	30	70	120	195	330	415	510	520
Census Region	West	175	151.8	138.65	10.481	2	720	25	60	120	180	355	475	530	690
Day Of Week	Weekday	420	132.5	109.32	5.334	4	660	20	60	105	175	285	360	475	530
Day Of Week	Weekend	272	166.6	135.66	8.225	2	720	30	60	120	227.5	345	495	533	635
Season	Winter	128	149.5	135.12	11.943	4	600	15	59.5	102.5	225	345	465	510	520
Season	Spring	252	151.3	116.12	7.315	5	690	30	70	120	180	300	410	510	530
Season	Summer	205	133	104.23	7.28	5	635	20	60	120	180	270	325	475	555
Season	Fall	107	153.4	144.65	13.984	2	720	15	60	120	180	360	480	655	660
Asthma	No	640	147.3	121.44	4.8	2	720	27.5	60	120	180	307.5	400	510	560
Asthma	Yes	47	109.1	87.096	12.704	5	510	15	60	90	135	210	240	510	510
Asthma	DK	5	312	230.04	102.879	60	600	60	120	300	480	600	600	600	600
Angina	No	665	143.6	118.92	4.611	2	720	25	60	120	180	300	385	510	560
Angina	Yes	18	144.7	96.703	22.793	30	330	30	60	135	165	330	330	330	330
Angina	DK	9	318.9	213.67	71.223	10	600	10	120	325	480	600	600	600	600
Bronchitis/emphysema	No	661	146.2	120.68	4.694	2	720	30	60	120	180	300	395	510	560
Bronchitis/emphysema	Yes	26	104.8	85.282	16.725	5	375	10	60	90	135	225	300	375	375
Bronchitis/emphysema	DK	5	312	230.04	102.879	60	600	60	120	300	480	600	600	600	600

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-73. Statistics for 24-Hour Cumulative Number of Minutes Spent in Clothes Care

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		893	79.479	73.355	2.455	2	535	10	30	60	118	175	210	300	375
Gender	Male	117	72.248	67.028	6.197	5	360	7	20	60	90	150	210	300	335
Gender	Female	776	80.57	74.241	2.665	2	535	10	30	60	120	180	225	300	375
Age (years)	*	10	59.5	34.757	10.991	15	120	15	25	60	90	105	120	120	120
Age (years)	1-4	4	70	94.251	47.126	5	210	5	17.5	32.5	122.5	210	210	210	210
Age (years)	5-11	11	39	33.856	10.208	2	92	2	5	30	60	90	92	92	92
Age (years)	12-17	21	37.476	39.447	8.608	3	150	5	10	20	60	80	120	150	150
Age (years)	18-64	702	80.474	74.354	2.806	2	535	10	28	60	120	180	210	300	360
Age (years)	> 64	145	85.455	73.545	6.108	2	375	10	30	60	120	180	245	300	375
Race	White	737	80.096	73.392	2.703	2	535	10	30	60	118	175	223	300	375
Race	Black	99	68.636	65.289	6.562	5	300	5	15	45	110	165	210	240	300
Race	Asian	7	107.857	48.807	18.447	60	210	60	80	90	120	210	210	210	210
Race	Some Others	10	62.4	39.09	12.361	18	120	18	21	65	90	120	120	120	120
Race	Hispanic	33	92.879	78.01	13.58	5	265	5	20	90	150	210	225	265	265
Race	Refused	7	100.714	166.018	62.749	15	475	15	20	45	60	475	475	475	475
Hispanic	No	836	78.248	72.306	2.501	2	535	10	30	60	115	165	210	300	360
Hispanic	Yes	51	91.176	71.178	9.967	5	265	5	20	90	150	190	225	225	265
Hispanic	DK	3	118.333	62.517	36.094	55	180	55	55	120	180	180	180	180	180
Hispanic	Refused	3	185	251.942	145.459	20	475	20	20	60	475	475	475	475	475
Employment	*	34	43.412	46.313	7.943	2	210	3	10	30	60	92	150	210	210
Employment	Full Time	402	73.443	73.706	3.676	2	535	5	20	60	100	155	223	300	360
Employment	Part Time	116	80.724	68.545	6.364	2	335	10	30	67.5	117.5	180	225	240	330
Employment	Not Employed	336	89.804	75.166	4.101	2	475	10	35	60	120	185	235	300	375
Employment	Refused	5	87.4	74.725	33.418	2	180	2	45	60	150	180	180	180	180
Education	*	43	47.488	48.217	7.353	2	210	5	10	30	60	92	150	210	210
Education	< High School	102	86.51	60.048	5.946	10	265	15	38	65	120	175	210	240	245
Education	High School Graduate	337	85.19	82.249	4.48	2	535	10	30	60	120	180	240	375	445
Education	< College	193	85.87	78.466	5.648	2	475	5	21	60	120	190	240	300	375
Education	College Graduate	127	67.756	56.995	5.058	5	260	10	20	60	90	150	190	225	225
Education	Post Graduate	91	68.374	64.714	6.784	5	360	5	20	60	90	145	210	245	360
Census Region	Northeast	222	76.905	67.875	4.555	2	535	10	30	60	120	150	200	245	300
Census Region	Midwest	201	78.448	75.998	5.36	2	475	5	20	60	115	170	210	265	420
Census Region	South	304	81.839	75.654	4.339	5	450	10	30	60	115	170	235	330	375
Census Region	West	166	79.849	73.398	5.697	2	405	5	20	60	120	180	223	300	360
Day Of Week	Weekday	607	75.853	72.909	2.959	2	475	5	25	60	105	160	210	300	375
Day Of Week	Weekend	286	87.175	73.832	4.366	5	535	10	30	65	120	180	223	300	335
Season	Winter	254	82.291	80.245	5.035	2	475	7	23	60	120	190	225	330	445
Season	Spring	213	86.103	79.325	5.435	2	450	10	30	60	120	180	240	335	375
Season	Summer	259	76.722	68.328	4.246	2	535	8	30	60	115	154	190	240	360
Season	Fall	167	71.03	60.463	4.679	3	300	5	25	60	105	150	195	240	300
Asthma	No	829	79.534	74.024	2.571	2	535	10	30	60	118	180	225	300	360
Asthma	Yes	62	79.855	65.269	8.289	5	375	10	30	66.5	120	154	180	200	375
Asthma	DK	2	45	21.213	15	30	60	30	30	45	60	60	60	60	60
Angina	No	867	79.516	73.48	2.496	2	535	10	30	60	120	178	210	300	375
Angina	Yes	22	81.591	75.756	16.151	5	335	10	30	60	120	155	195	335	335
Angina	DK	4	60	24.495	12.247	30	90	30	45	60	75	90	90	90	90
Bronchitis/emphysema	No	834	78.45	73.617	2.549	2	535	8	25	60	115	170	210	300	375
Bronchitis/emphysema	Yes	58	94.621	68.927	9.051	5	335	15	60	77.5	120	190	240	300	335
Bronchitis/emphysema	DK	1	60	0	0	60	60	60	60	60	60	60	60	60	60

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-74. Statistics for 24-Hour Cumulative Number of Minutes Spent in Car Repair/Maintenance

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		145	123.407	147.198	12.224	5	700	5	30	60	150	300	495	670	690
Gender	Male	110	135.582	152.737	14.563	5	700	5	30	85	170	300	505	600	670
Gender	Female	35	85.143	122.441	20.696	5	690	5	15	45	120	180	270	690	690
Age (years)	*	1	60	*	*	60	60	60	60	60	60	60	60	60	60
Age (years)	1-4	1	150	*	*	150	150	150	150	150	150	150	150	150	150
Age (years)	5-11	1	300	*	*	300	300	300	300	300	300	300	300	300	300
Age (years)	12-17	8	106.875	163.837	57.925	20	505	20	30	45	90	505	505	505	505
Age (years)	18-64	114	130.342	156.511	14.659	5	700	5	30	77.5	165	300	520	670	690
Age (years)	> 64	20	83.5	68.347	15.283	10	300	12.5	30	70	120	150	240	300	300
Race	White	112	139.607	158.66	14.992	5	700	10	30	90	175	300	520	670	690
Race	Black	19	85.789	93.516	21.454	5	300	5	20	60	95	300	300	300	300
Race	Asian	2	10	7.071	5	5	15	5	5	10	15	15	15	15	15
Race	Some Others	6	43.333	42.387	17.304	5	120	5	10	32.5	60	120	120	120	120
Race	Hispanic	6	58	51.595	21.063	5	120	5	13	45	120	120	120	120	120
Hispanic	No	133	123.617	144.993	12.573	5	700	5	30	80	150	300	495	670	690
Hispanic	Yes	10	98.8	153.362	48.497	5	520	5	30	45	120	320	520	520	520
Hispanic	DK	2	232.5	321.734	227.5	5	460	5	5	233	460	460	460	460	460
Employment	*	10	130.5	156.87	49.607	20	505	20	30	52.5	150	402.5	505	505	505
Employment	Full Time	77	122.091	150.192	17.116	5	700	5	30	60	165	300	520	670	700
Employment	Part Time	12	123.167	138.769	40.059	8	495	8	40	72.5	150	270	495	495	495
Employment	Not Employed	46	124.13	146.952	21.667	5	690	10	30	90	120	300	480	690	690
Education	*	13	120	139.523	38.697	15	505	15	30	60	120	300	505	505	505
Education	< High School	17	185.882	224.418	54.429	5	670	5	30	90	220	555	670	670	670
Education	High School Graduate	50	111.52	128.261	18.139	5	690	5	30	67.5	120	270	350	585	690
Education	< College	31	138.226	169.231	30.395	5	700	10	30	85	180	280	600	700	700
Education	College Graduate	20	93.25	99.344	22.214	10	300	10	15	45	135	285	300	300	300
Education	Post Graduate	14	103.429	97.566	26.076	5	300	5	30	75	120	300	300	300	300
Census Region	Northeast	28	130.75	163.729	30.942	8	690	10	30	60	200	300	520	690	690
Census Region	Midwest	31	149.839	173.193	31.106	10	670	10	45	90	120	350	600	670	670
Census Region	South	45	106.778	131.409	19.589	5	700	5	30	60	120	240	300	700	700
Census Region	West	41	116.659	132.206	20.647	5	505	5	30	60	120	300	460	505	505
Day Of Week	Weekday	79	108.519	125.914	14.166	5	690	5	15	60	150	280	350	480	690
Day Of Week	Weekend	66	141.227	168.477	20.738	5	700	10	45	82.5	150	495	555	670	700
Season	Winter	49	130.673	167.715	23.959	5	690	5	30	60	165	350	600	690	690
Season	Spring	39	136.667	156.042	24.987	5	700	5	45	85	150	300	555	700	700
Season	Summer	35	121.514	137.704	23.276	5	505	5	30	60	150	300	480	505	505
Season	Fall	22	86.727	87.502	18.655	5	300	8	10	70	120	240	270	300	300
Asthma	No	137	117.657	139.579	11.925	5	700	5	30	60	120	300	495	600	690
Asthma	Yes	8	221.875	235.553	83.281	15	670	15	30	150	365	670	670	670	670
Angina	No	139	125.712	149.156	12.651	5	700	5	30	75	150	300	505	670	690
Angina	Yes	5	51	72.921	32.611	5	180	5	15	20	35	180	180	180	180
Angina	DK	1	165	*	*	165	165	165	165	165	165	165	165	165	165
Bronchitis/Emphysema	No	140	122.279	145.67	12.311	5	700	5	30	67.5	135	300	500	670	690
Bronchitis/Emphysema	Yes	5	155	203.347	90.94	5	460	5	10	30	270	460	460	460	460

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-75. Statistics for 24-Hour Cumulative Number of Minutes Spent in Other Repairs

Group Name	Group Code	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		288	184.816	184.111	10.849	2	1080	10	36.5	120	300	425	525	690	840
Gender	Male	200	205.045	187.704	13.273	2	1080	10	60	150	327.5	460	555	680	810
Gender	Female	88	138.841	167.784	17.886	3	900	5	17.5	72.5	192.5	360	425	750	900
Age (years)	*	1	540	*	*	540	540	540	540	540	540	540	540	540	540
Age (years)	5-11	3	66.667	55.076	31.798	10	120	10	10	70	120	120	120	120	120
Age (years)	12-17	14	119.5	103.383	27.63	15	345	15	30	90	180	285	345	345	345
Age (years)	18-64	221	198.471	192.928	12.978	2	1080	10	45	120	325	434	570	750	840
Age (years)	> 64	49	141.878	146.868	20.981	2	526	10	30	75	209	390	480	526	526
Race	White	264	186.367	184.944	11.382	2	1080	10	36.5	120	300	430	525	670	840
Race	Black	13	150.385	207.961	57.678	10	750	10	30	90	120	390	750	750	750
Race	Asian	3	321.667	89.489	51.667	270	425	270	270	270	425	425	425	425	425
Race	Some Others	3	173.667	165.228	95.395	45	360	45	45	116	360	360	360	360	360
Race	Hispanic	4	127.5	122.848	61.424	10	290	10	35	105	220	290	290	290	290
Race	Refused	1	75	*	*	75	75	75	75	75	75	75	75	75	75
Hispanic	No	278	184.917	184.467	11.064	2	1080	10	35	120	300	425	525	690	840
Hispanic	Yes	9	160.556	180.666	60.222	10	575	10	60	60	210	575	575	575	575
Hispanic	DK	1	375	*	*	375	375	375	375	375	375	375	375	375	375
Employment	*	17	110.176	97.439	23.632	10	345	10	30	90	180	285	345	345	345
Employment	Full Time	140	199.993	206.025	17.412	5	1080	8.5	60	120	297.5	470	600	840	900
Employment	Part Time	27	167.963	153.74	29.587	5	490	10	25	120	302	390	434	490	490
Employment	Not Employed	102	183.314	169.14	16.747	2	670	10	30	120	315	420	480	526	600
Employment	Refused	2	61	83.439	59	2	120	2	2	61	120	120	120	120	120
Education	*	18	110.722	94.558	22.287	10	345	10	30	90	180	285	345	345	345
Education	< High School	23	214.348	215.017	44.834	15	900	30	45	120	360	480	490	900	900
Education	High School Graduate	90	194.4	196.472	20.71	3	840	5	30	132.5	300	447	575	780	840
Education	< College	64	202.156	200.764	25.095	2	1080	10	32.5	130	355	420	480	600	1080
Education	College Graduate	54	169	154.537	21.03	5	525	10	60	97.5	270	425	490	510	525
Education	Post Graduate	39	172.923	174.213	27.896	2	690	7	38	120	270	420	600	690	690
Census Region	Northeast	55	166.164	181.344	24.452	3	840	5	30	75	210	415	525	600	840
Census Region	Midwest	77	188.909	170.219	19.398	10	780	15	60	120	315	420	460	670	780
Census Region	South	89	202.281	212.332	22.507	2	1080	10	30	120	315	480	570	900	1080
Census Region	West	67	172.224	161.66	19.75	2	750	7	60	120	243	340	526	690	750
Day Of Week	Weekday	188	178.213	171.94	12.54	2	780	10	42.5	110	300	430	490	600	750
Day Of Week	Weekend	100	197.23	205.392	20.539	3	1080	5	32.5	145	296.5	420	585	870	990
Season	Winter	62	167.097	172.076	21.854	3	600	5	15	90	300	445	490	540	600
Season	Spring	65	203.123	216.629	26.87	5	900	10	45	120	300	480	670	840	900
Season	Summer	95	180.442	182.013	18.674	2	1080	10	60	120	290	390	510	750	1080
Season	Fall	66	189.727	164.551	20.255	2	600	10	55	120	330	420	435	600	600
Asthma	No	264	180.33	183.699	11.306	2	1080	10	36.5	120	288.5	420	525	690	840
Asthma	Yes	24	234.167	185.283	37.821	5	670	10	45	210	352.5	480	510	670	670
Angina	No	281	179.687	175.258	10.455	2	900	10	30	120	295	420	490	670	780
Angina	Yes	6	448.333	369.995	151.05	90	1080	90	100	410	600	1080	1080	1080	1080
Angina	DK	1	45	*	*	45	45	45	45	45	45	45	45	45	45
Bronchitis/emphysema	No	276	184.681	185.591	11.171	2	1080	10	36.5	120	299	430	526	690	840
Bronchitis/emphysema	Yes	12	187.917	152.591	44.049	5	405	5	45	165	350	360	405	405	405

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-76. Statistics for 24-Hour Cumulative Number of Minutes Spent in Plant Care															
Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		254	103.602	108.761	6.824	3	630	10	30	60	130	225	300	480	570
Gender	Male	84	146.274	145.969	15.926	10	630	15	32.5	105	195	380	480	570	630
Gender	Female	170	82.518	76.759	5.887	3	630	10	30	60	120	180	210	270	325
Age (years)	*	4	51.25	24.622	12.311	15	70	15	37.5	60	65	70	70	70	70
Age (years)	5-11	5	121	120.955	54.093	35	330	35	60	60	120	330	330	330	330
Age (years)	12-17	3	51	61.262	35.369	3	120	3	3	30	120	120	120	120	120
Age (years)	18-64	157	100.49	104.921	8.374	5	570	10	30	60	135	225	300	475	565
Age (years)	> 64	85	112.647	118.439	12.846	5	630	10	35	75	135	240	280	630	630
Race	White	233	102.124	106.695	6.99	3	630	10	30	60	120	225	300	480	570
Race	Black	8	81.25	90.149	31.872	15	280	15	15	50	112.5	280	280	280	280
Race	Asian	3	140	45.826	26.458	90	180	90	90	150	180	180	180	180	180
Race	Some Others	2	137.5	187.383	132.5	5	270	5	5	138	270	270	270	270	270
Race	Hispanic	6	164.167	209.796	85.649	15	565	15	15	90	210	565	565	565	565
Race	Refused	2	95	49.497	35	60	130	60	60	95	130	130	130	130	130
Hispanic	No	244	102.971	106.161	6.796	3	630	10	30	60	132.5	225	280	480	570
Hispanic	Yes	7	149.286	195.521	73.9	15	565	15	15	60	210	565	565	565	565
Hispanic	DK	1	60	*	*	60	60	60	60	60	60	60	60	60	60
Hispanic	Refused	2	42.5	24.749	17.5	25	60	25	25	42.5	60	60	60	60	60
Employment	*	8	94.75	103.657	36.648	3	330	3	32.5	60	120	330	330	330	330
Employment	Full Time	94	94.436	111.848	11.536	5	630	10	30	60	120	195	325	570	630
Employment	Part Time	25	112.2	104.812	20.962	15	485	15	30	90	150	210	270	485	485
Employment	Not Employed	124	108.387	108.655	9.758	5	630	10	40	72.5	127.5	240	270	480	565
Employment	Refused	3	145	99.875	57.663	60	255	60	60	120	255	255	255	255	255
Education	*	9	86.444	100.113	33.371	3	330	3	30	60	120	330	330	330	330
Education	< High School	30	92.333	108.753	19.855	10	475	10	15	60	120	170	420	475	475
Education	High School Graduate	93	87.656	95.248	9.877	5	565	10	30	60	120	180	255	480	565
Education	< College	47	118.298	112.855	16.462	5	630	10	50	90	150	240	240	630	630
Education	College Graduate	35	139	107.818	18.225	15	485	15	55	120	195	280	325	485	485
Education	Post Graduate	40	104.75	131.036	20.719	15	630	15	30	60	120	217.5	420	630	630
Census Region	Northeast	55	116.055	116.677	15.733	3	485	10	30	70	150	250	420	480	485
Census Region	Midwest	41	101.659	109.248	17.062	5	630	30	30	60	120	195	270	630	630
Census Region	South	77	82.078	76.081	8.67	5	475	10	30	60	120	175	225	300	475
Census Region	West	81	116.593	126.602	14.067	10	630	14	30	75	150	240	330	570	630
Day Of Week	Weekday	170	104.559	105.561	8.096	3	630	14	30	60	130	225	280	480	565
Day Of Week	Weekend	84	101.667	115.595	12.612	5	630	10	30	60	127.5	240	325	570	630
Season	Winter	15	135.333	170.592	44.047	5	565	5	30	60	175	485	565	565	565
Season	Spring	96	124.323	108.656	11.09	5	570	15	45	90	150	270	330	475	570
Season	Summer	111	89.82	100.882	9.575	3	630	10	30	60	120	190	225	420	630
Season	Fall	32	74.375	87.894	15.538	5	480	10	25	47.5	102.5	135	195	480	480
Asthma	No	239	105	108.541	7.021	3	630	10	30	60	135	235	300	485	570
Asthma	Yes	15	81.333	113.68	29.352	5	450	5	15	55	90	175	450	450	450
Angina	No	240	103.083	107.762	6.956	3	630	10	30	60	125	225	290	480	570
Angina	Yes	13	120.769	130.286	36.135	15	485	15	55	60	135	270	485	485	485
Angina	DK	1	5	*	*	5	5	5	5	5	5	5	5	5	5
Bronchitis/emphysema	No	248	105.202	109.525	6.955	3	630	10	30	60	135	235	300	485	570
Bronchitis/emphysema	Yes	6	37.5	24.238	9.895	5	60	5	15	42.5	60	60	60	60	60

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-77. Statistics for 24-Hour Cumulative Number of Minutes Spent in Animal Care

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles									
								5	25	50	75	90	95	98	99		
All		764	48.168	65.029	2.3527	1	760	5	10	30	60	120	155	230	312		
Gender	Male	282	57.291	81.786	4.8703	1	760	5	15	30	65	120	180	308	340		
Gender	Female	482	42.83	52.182	2.3768	1	450	3	10	28.5	60	105	140	187	273		
Age (years)	*	13	37.462	38.606	10.7074	2	135	2	5	30	55	80	135	135	135		
Age (years)	1-4	9	59.222	44.291	14.7637	3	140	3	30	60	90	140	140	140	140		
Age (years)	5-11	27	47.296	43.1	8.2946	2	179	8	15	38	65	120	150	179	179		
Age (years)	12-17	49	55.204	68.276	9.7537	3	308	5	10	25	90	175	180	308	308		
Age (years)	18-64	530	45.928	66.581	2.8921	1	760	3	10	30	60	109	150	230	280		
Age (years)	> 64	136	54.824	64.527	5.5331	1	383	5	15	30	60	135	180	340	340		
Race	White	696	47.757	62.011	2.3505	1	760	4	10	30	60	120	155	240	312		
Race	Black	26	37.577	39.832	7.8117	1	145	1	10	25	45	120	120	145	145		
Race	Asian	5	30.4	21.87	9.7806	10	60	10	15	20	47	60	60	60	60		
Race	Some Others	12	100	193.567	55.878	5	690	5	17.5	30	65	205	690	690	690		
Race	Hispanic	17	37.765	44.992	10.9123	5	180	5	15	30	35	120	180	180	180		
Race	Refused	8	73.75	58.478	20.675	5	180	5	32.5	55	115	180	180	180	180		
Hispanic	No	712	47.81	61.479	2.304	1	760	4	10	30	60	120	151	230	308		
Hispanic	Yes	39	50.872	112.78	18.0593	2	690	3	10	20	35	120	180	690	690		
Hispanic	DK	6	50	77.071	31.4643	10	205	10	10	15	45	205	205	205	205		
Hispanic	Refused	7	67.857	62.039	23.4485	5	180	5	20	60	120	180	180	180	180		
Employment	*	86	51.221	56.803	6.1252	2	308	5	15	30	70	120	175	240	308		
Employment	Full Time	376	44.918	71.458	3.6852	1	760	3	10	25	60	90	145	240	340		
Employment	Part Time	60	48.883	56.285	7.2664	3	230	5	12.5	20	60	152.5	176.5	205	230		
Employment	Not Employed	233	52.459	59.357	3.8886	1	383	5	15	30	60	120	180	273	330		
Employment	Refused	9	38.889	53.897	17.9656	5	180	5	20	30	30	180	180	180	180		
Education	*	98	52.347	57.02	5.7599	2	308	5	15	30	70	140	180	240	308		
Education	< High School	63	51.492	68.122	8.5825	1	383	5	15	30	60	120	225	273	383		
Education	High School Graduate	231	52.913	75.819	4.9885	1	760	5	10	30	70	120	165	245	330		
Education	< College	150	40.593	49.247	4.021	1	280	4	10	20	55	97.5	155	205	230		
Education	College Graduate	121	51.273	79.213	7.2012	1	690	3	15	30	60	110	135	340	340		
Education	Post Graduate	101	38.713	40.069	3.987	1	240	5	12	30	57	80	105	150	185		
Census Region	Northeast	171	39.789	44.88	3.432	1	273	3	10	25	60	90	120	205	245		
Census Region	Midwest	181	49.773	58.716	4.3644	1	330	4	14	30	60	120	180	240	312		
Census Region	South	247	51.389	75.022	4.7736	1	760	5	15	30	60	120	165	308	383		
Census Region	West	165	50.267	72.551	5.6481	1	690	3	10	30	60	120	155	210	340		
Day Of Week	Weekday	527	46.602	66.468	2.8954	1	760	4	10	30	60	115	155	195	280		
Day Of Week	Weekend	237	51.65	61.703	4.0081	1	383	5	15	30	60	120	180	273	330		
Season	Winter	221	44.62	66.372	4.4647	1	690	4	10	25	55	95	160	225	245		
Season	Spring	201	52.99	60.351	4.2568	1	340	5	15	30	60	120	175	240	330		
Season	Summer	216	51.426	76.405	5.1987	1	760	5	15	30	64	120	165	240	383		
Season	Fall	126	41.111	45.413	4.0457	1	280	3	10	25	60	110	135	180	180		
Asthma	No	705	48.401	65.505	2.4671	1	760	4	10	30	60	120	155	225	308		
Asthma	Yes	57	45.386	60.468	8.0091	1	330	5	10	30	55	105	195	240	330		
Asthma	DK	2	45	21.213	15	30	60	30	30	45	60	60	60	60	60		
Angina	No	734	47.834	64.308	2.3737	1	760	5	10	30	60	120	155	225	280		
Angina	Yes	27	58.704	85.601	16.474	2	340	3	15	30	60	135	330	340	340		
Angina	DK	3	35	22.913	13.2288	15	60	15	15	30	60	60	60	60	60		
Bronchitis/emphysema	No	718	48.357	65.56	2.4467	1	760	4	10	30	60	120	160	230	308		
Bronchitis/emphysema	Yes	43	45.395	58.522	8.9245	2	330	5	10	30	55	90	150	330	330		
Bronchitis/emphysema	DK	3	42.667	15.535	8.9691	30	60	30	30	38	60	60	60	60	60		

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-78. Statistics for 24-Hour Cumulative Number of Minutes Spent in Other Household Work

Group Name	Group Code	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		1322	68.6354	98.697	2.7145	1	905	5	15	30	75	195	255	360	480
Gender	Male	478	70.3661	101.833	4.6577	1	905	5	10	30	90	195	265	375	480
Gender	Female	844	67.6552	96.923	3.3362	1	720	5	15	30	75	190	255	360	496
Age (years)	*	21	93.4286	113.994	24.8756	4	403	5	15	30	180	225	300	403	403
Age (years)	1-4	15	57.1333	85.7	22.1277	1	290	1	6	25	60	230	290	290	290
Age (years)	5-11	56	24.9464	30.134	4.0269	1	150	2	5	12.5	30	60	90	120	150
Age (years)	12-17	84	39.4762	51.785	5.6502	1	230	2	5	16.5	50	120	150	210	230
Age (years)	18-64	918	71.2353	101.54	3.3513	1	905	5	15	30	90	195	265	375	540
Age (years)	> 64	228	78.114	106.158	7.0305	1	665	5	14.5	30	90	225	295	420	480
Race	White	1118	70.6977	98.015	2.9314	1	720	5	15	30	80	195	265	375	480
Race	Black	102	46.1176	65.201	6.4558	1	300	3	10	15	50	120	210	255	260
Race	Asian	20	71.9	76.619	17.1324	1	315	1.5	22.5	60	105	162.5	260	315	315
Race	Some Others	22	67.7727	190.288	40.5695	1	905	2	10	15	30	90	155	905	905
Race	Hispanic	43	65.6512	118.419	18.0587	5	660	5	10	20	60	155	270	660	660
Race	Refused	17	72.9412	108.744	26.3742	5	420	5	15	20	75	210	420	420	420
Hispanic	No	1218	67.8342	93.324	2.674	1	720	5	15	30	75	195	255	358	420
Hispanic	Yes	81	80.5185	159.202	17.6891	1	905	5	10	20	60	155	360	665	905
Hispanic	DK	7	54.1429	74.627	28.2062	1	210	1	10	25	90	210	210	210	210
Hispanic	Refused	16	75.8125	113.469	28.3673	5	420	5	15	25	82.5	233	420	420	420
Employment	*	153	37.0196	52.694	4.2601	1	290	2	5	15	45	90	150	225	230
Employment	Full Time	555	70.0342	103.005	4.3723	1	905	5	15	30	85	195	265	375	540
Employment	Part Time	124	62.0726	86.315	7.7513	2	420	5	15	30	65	190	240	400	403
Employment	Not Employed	482	78.3008	105.529	4.8067	1	685	5	15	30	100	224	270	420	575
Employment	Refused	8	95.625	110.014	38.8959	5	300	5	17.5	32.5	180	300	300	300	300
Education	*	175	42.7086	64.901	4.906	1	450	2	5	15	45	120	192	233	300
Education	< High School	96	82.5313	114.62	11.6983	1	660	5	15	30	117.5	240	328	420	660
Education	High School Graduate	418	75.5574	105.946	5.182	1	720	5	15	30	90	215	270	420	540
Education	< College	290	71.3724	100.836	5.9213	1	905	5	15	30	100	192.5	270	330	375
Education	College Graduate	196	73.6173	104.18	7.4414	1	600	5	15	30	85	190	330	400	585
Education	Post Graduate	147	58.7007	81.662	6.7354	1	570	4	10	30	65	150	210	315	420
Census Region	Northeast	307	62.8632	91.306	5.2111	1	665	5	15	30	63	180	255	360	400
Census Region	Midwest	318	70.8679	98.179	5.5056	1	590	5	15	30	90	180	270	375	570
Census Region	South	394	74.7056	106.703	5.3756	1	720	5	10	30	85	215	296	380	600
Census Region	West	303	64.2475	95.504	5.4866	1	905	5	13	30	75	180	240	330	420
Day Of Week	Weekday	857	71.5496	106.351	3.6329	1	905	5	10	30	85	210	295	380	570
Day Of Week	Weekend	465	63.2645	82.596	3.8303	1	600	5	15	30	75	170	225	296	403
Season	Winter	353	64.1558	91.547	4.8726	1	590	5	15	30	65	195	240	345	480
Season	Spring	327	82.844	118.992	6.5803	1	905	5	15	30	115	240	305	420	585
Season	Summer	391	62.1125	97.341	4.9227	1	685	5	10	30	60	160	255	400	570
Season	Fall	251	66.5857	77.867	4.9149	1	480	5	15	35	90	180	230	292	345
Asthma	No	1211	67.8423	98.123	2.8197	1	905	5	15	30	75	190	255	360	480
Asthma	Yes	103	75.6893	104.033	10.2507	1	575	5	15	30	100	210	240	400	480
Asthma	DK	8	97.875	120.21	42.5006	5	300	5	15	17.5	206.5	300	300	300	300
Angina	No	1269	68.2041	99.025	2.7798	1	905	5	15	30	75	190	255	375	496
Angina	Yes	44	77.1364	86.104	12.9807	5	300	5	10	30	132.5	220	240	300	300
Angina	DK	9	87.8889	116.368	38.7895	5	300	5	15	15	180	300	300	300	300
Bronchitis/Emphysema	No	1247	67.8043	97.936	2.7734	1	905	5	15	30	75	190	255	360	480
Bronchitis/Emphysema	Yes	64	83.4844	111.726	13.9658	1	575	5	15	32.5	117.5	220	265	480	575
Bronchitis/Emphysema	DK	11	76.4545	107.17	32.3131	5	300	5	15	20	180	233	300	300	300

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-79. Statistics for 24-Hour Cumulative Number of Minutes Spent in Indoor Playing

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		188	105	82.7	6.03	2	510	20	55	90	127.5	190	270	390	435
Gender	Male	65	117	97.1	12	10	510	20	60	90	135	255	300	435	510
Gender	Female	123	99.5	73.8	6.65	2	420	20	55	76	120	190	225	340	375
Age (years)	*	3	127	47.3	27.3	90	180	90	90	110	180	180	180	180	180
Age (years)	1-4	11	130	80.2	24.2	15	270	15	60	115	180	255	270	270	270
Age (years)	5-11	11	93.6	64.3	19.4	30	195	30	30	60	175	180	195	195	195
Age (years)	12-17	4	82.5	45	22.5	30	120	30	45	90	120	120	120	120	120
Age (years)	18-64	149	103	86	7.05	2	510	20	55	76	120	190	292	420	435
Age (years)	> 64	10	124	76.4	24.2	20	270	20	75	100	150	248	270	270	270
Race	White	153	110	84.3	6.82	2	510	20	60	90	130	190	270	390	435
Race	Black	13	95	84.8	23.5	15	255	15	30	60	180	220	255	255	255
Race	Asian	5	71	56.8	25.4	10	150	10	30	60	105	150	150	150	150
Race	Some Others	7	108	96.5	36.5	30	300	30	55	60	175	300	300	300	300
Race	Hispanic	8	68.4	46.4	16.4	42	180	42	45	50	67.5	180	180	180	180
Race	Refused	2	64	65.1	46	18	110	18	18	64	110	110	110	110	110
Hispanic	No	172	107	83.9	6.4	2	510	20	60	90	132.5	190	270	390	435
Hispanic	Yes	15	88.1	71.4	18.4	42	300	42	45	60	100	180	300	300	300
Hispanic	Refused	1	110	*	*	110	110	110	110	110	110	110	110	110	110
Employment	*	26	108	69.9	13.7	15	270	30	55	105	160	195	255	270	270
Employment	Full Time	74	102	95	11	2	510	15	45	70	125	195	300	435	510
Employment	Part Time	20	124	74	16.6	30	340	36	60	120	165	200	280	340	340
Employment	Not Employed	68	102	76	9.21	15	420	30	60	85	120	180	245	390	420
Education	*	27	108	68.6	13.2	15	270	30	55	110	160	195	255	270	270
Education	< High School	16	89.4	58.8	14.7	20	220	20	52.5	60	125	180	220	220	220
Education	High School Graduate	59	102	83.6	10.9	2	435	20	55	75	135	180	340	375	435
Education	< College	33	112	97.7	17	10	510	20	55	90	120	190	300	510	510
Education	College Graduate	37	125	96.1	15.8	15	420	15	60	105	155	270	390	420	420
Education	Post Graduate	16	72.5	40.4	10.1	10	150	10	37.5	65	102.5	120	150	150	150
Census Region	Northeast	46	110	94.4	13.9	2	420	20	60	75	120	245	375	420	420
Census Region	Midwest	40	111	75.8	12	15	340	17.5	50	95	175	193	256	340	340
Census Region	South	64	100	73	9.13	10	435	30	52.5	87.5	127.5	180	225	270	435
Census Region	West	38	102	92.2	15	10	510	18	60	60	120	180	300	510	510
Day Of Week	Weekday	128	99.4	71	6.27	2	435	20	55	90	120	180	245	300	340
Day Of Week	Weekend	60	118	13	13.3	15	510	30	60	90	150	245	382.5	420	510
Season	Winter	49	130	99.2	14.2	18	420	20	60	105	180	300	375	420	420
Season	Spring	36	85.7	55.7	9.28	2	270	20	45	77.5	112.5	155	180	270	270
Season	Summer	47	92.7	77	11.2	10	435	30	45	60	120	180	195	435	435
Season	Fall	56	107	82.7	11	10	510	15	60	90	127.5	195	255	270	510
Asthma	No	174	107	84.1	6.38	2	510	20	55	90	130	190	270	390	435
Asthma	Yes	13	88.5	66.4	18.4	20	245	20	30	75	120	180	245	245	245
Asthma	DK	1	110	*	*	110	110	110	110	110	110	110	110	110	110
Angina	No	184	104	80.7	5.95	2	510	20	55	90	122.5	190	270	375	435
Angina	Yes	3	210	167	96.4	60	390	60	60	180	390	390	390	390	390
Angina	DK	1	110	*	*	110	110	110	110	110	110	110	110	110	110
Bronchitis/emphysema	No	177	107	83.5	6.27	2	510	20	60	90	130	190	270	390	435
Bronchitis/emphysema	Yes	10	80.1	72.5	22.9	10	245	10	30	60	76	208	245	245	245
Bronchitis/emphysema	DK	1	110	*	*	110	110	110	110	110	110	110	110	110	110

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-80. Statistics for 24-Hour Cumulative Number of Minutes Spent in Outdoor Playing

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		59	97.373	95.372	12.416	5	435	15	45	60	110	210	360	420	435
Gender	Male	26	108.192	94.783	18.588	15	360	15	60	75	135	280	345	360	360
Gender	Female	33	88.848	96.425	16.785	5	435	5	45	60	100	150	420	435	435
Age (years)	*	1	170	*	*	170	170	170	170	170	170	170	170	170	170
Age (years)	1-4	4	83.25	89.66	44.83	15	210	15	20	54	146.5	210	210	210	210
Age (years)	5-11	9	148.333	144.265	48.088	5	360	5	55	60	280	360	360	360	360
Age (years)	12-17	1	15	*	*	15	15	15	15	15	15	15	15	15	15
Age (years)	18-64	40	92.05	86.358	13.654	20	435	27.5	52.5	65	102.5	142.5	307	435	435
Age (years)	> 64	4	52.5	15	7.5	30	60	30	45	60	60	60	60	60	60
Race	White	50	93.94	90.208	12.757	5	420	15	45	60	100	202	345	390	420
Race	Black	2	86.5	37.477	26.5	60	113	60	60	86.5	113	113	113	113	113
Race	Asian	1	100	*	*	100	100	100	100	100	100	100	100	100	100
Race	Some Others	1	30	*	*	30	30	30	30	30	30	30	30	30	30
Race	Hispanic	5	149	164.864	73.729	20	435	20	60	110	120	435	435	435	435
Hispanic	No	51	93.333	89.747	12.567	5	420	15	45	60	100	194	345	360	420
Hispanic	Yes	8	123.125	130.218	46.039	20	435	20	60	90	115	435	435	435	435
Employment	*	15	123.533	124.379	32.115	5	360	5	15	60	210	345	360	360	360
Employment	Full Time	15	67.2	30.887	7.975	20	135	20	45	60	85	113	135	135	135
Employment	Part Time	7	87.714	54.129	20.459	30	194	30	60	60	110	194	194	194	194
Employment	Not Employed	22	103.182	110.136	23.481	25	435	30	45	60	105	150	420	435	435
Education	*	15	123.533	124.379	32.115	5	360	5	15	60	210	345	360	360	360
Education	< High School	5	57	6.708	3	45	60	45	60	60	60	60	60	60	60
Education	High School Graduate	10	148.5	150.482	47.586	30	435	30	60	95	135	427.5	435	435	435
Education	< College	18	74.667	45.169	10.646	20	194	20	45	60	95	150	194	194	194
Education	College Graduate	8	75.375	35.492	12.548	30	120	30	45	75	106.5	120	120	120	120
Education	Post Graduate	3	58.333	24.664	14.24	30	75	30	30	70	75	75	75	75	75
Census Region	Northeast	17	114.059	103.26	25.044	15	360	15	60	70	120	345	360	360	360
Census Region	Midwest	12	78.583	32.354	9.34	30	150	30	60	65	97.5	113	150	150	150
Census Region	South	15	109.667	109.536	28.282	30	420	30	30	60	135	280	420	420	420
Census Region	West	15	81.2	107.674	27.801	5	435	5	20	60	105	165	435	435	435
Day Of Week	Weekday	42	86.81	79.211	12.223	5	360	15	30	60	100	165	280	360	360
Day Of Week	Weekend	17	123.471	126.007	30.561	25	435	25	45	60	120	420	435	435	435
Season	Winter	10	66.5	46.251	14.626	5	150	5	30	60	105	135	150	150	150
Season	Spring	10	135.3	114.735	36.283	45	435	45	60	108	165	302.5	435	435	435
Season	Summer	31	92.355	94.966	17.056	5	420	15	45	60	100	210	345	420	420
Season	Fall	8	108	115.681	40.899	25	360	25	30	67.5	142	360	360	360	360
Asthma	No	56	94.821	91.447	12.22	5	435	15	45	60	107.5	194	360	420	435
Asthma	Yes	3	145	173.853	100.374	30	345	30	30	60	345	345	345	345	345
Angina	No	58	96.983	96.158	12.626	5	435	15	45	60	105	210	360	420	435
Angina	Yes	1	120	*	*	120	120	120	120	120	120	120	120	120	120
Bronchitis/Emphysema	No	55	90.018	87.056	11.739	5	435	15	45	60	100	170	345	360	435
Bronchitis/Emphysema	Yes	4	198.5	157.509	78.754	60	420	60	90	157	307	420	420	420	420

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.



Table 15-81. Statistics for 24-Hour Cumulative Number of Minutes Spent for Car Repair Services

Category	Population Group	N	Mean	Stdev	Stderr	Min	Max	Percentiles							
								5	25	50	75	90	95	98	99
All		259	33.7876	53.772	3.3413	1	358	5	5	10	30	90	180	195	270
Gender	Male	128	41.6953	65.45	5.7851	1	358	4	5	15	45	120	180	270	280
Gender	Female	131	26.0611	37.84	3.3061	2	180	5	5	10	30	65	105	180	180
Age (years)	*	2	88	2.828	2	86	90	86	86	88	90	90	90	90	90
Age (years)	1-4	8	33.125	43.666	15.438	5	115	5	5	12.5	55	115	115	115	115
Age (years)	5-11	6	18.3333	20.897	8.531	5	60	5	5	12.5	15	60	60	60	60
Age (years)	12-17	13	31.3077	32.638	9.0521	3	95	3	5	10	55	79	95	95	95
Age (years)	18-64	204	32.4853	52.731	3.6919	1	280	5	5	10	30	85	180	195	265
Age (years)	> 64	26	44.8462	75.446	14.796	1	358	2	10	15	50	105	180	358	358
Race	White	226	33.8451	51.028	3.3943	1	280	5	5	10	35	90	175	195	265
Race	Black	19	49.3158	90.675	20.802	1	358	1	5	10	44	180	358	358	358
Race	Asian	3	11.6667	11.547	6.6667	5	25	5	5	5	25	25	25	25	25
Race	Some Others	5	11	8.944	4	5	25	5	5	5	15	25	25	25	25
Race	Hispanic	6	12.5	6.124	2.5	5	20	5	5	15	15	20	20	20	20
Hispanic	No	247	34.6154	54.728	3.4822	1	358	5	5	10	35	90	180	245	270
Hispanic	Yes	12	16.75	22.471	6.4867	5	86	5	5	12.5	15	20	86	86	86
Employment	*	26	27.7692	33.586	6.5868	3	115	5	5	10	50	90	95	115	115
Employment	Full Time	137	31.8759	52.912	4.5206	1	280	4	5	10	30	85	175	265	270
Employment	Part Time	25	32.96	49.672	9.9344	5	180	5	7	15	30	105	180	180	180
Employment	Not Employed	70	40.4714	62.833	7.51	1	358	4	10	15	35	103	180	245	358
Employment	Refused	1	5	*	*	5	5	5	5	5	5	5	5	5	5
Education	*	28	28.4643	32.992	6.2349	3	115	5	5	12.5	52.5	90	95	115	115
Education	< High School	20	36.15	51.714	11.564	5	180	5	10	15	45	117.5	177.5	180	180
Education	High School Graduate	64	41.0781	62.959	7.8698	2	280	5	5	15	47.5	105	180	265	280
Education	< College	68	36.2206	59.709	7.2407	1	358	2	5	15	37.5	90	180	180	358
Education	College Graduate	41	29.6829	54.536	8.5171	1	270	4	5	10	25	60	160	270	270
Education	Post Graduate	38	24.2632	36.541	5.9277	5	195	5	5	10	20	70	95	195	195
Census Region	Northeast	45	40.4889	58.498	8.7204	2	270	5	5	15	60	105	180	270	270
Census Region	Midwest	66	34.6364	56.367	6.9383	2	280	5	5	10	35	70	180	265	280
Census Region	South	88	34.8182	60.547	6.4543	1	358	3	5	10	30	95	180	245	358
Census Region	West	60	26.3167	33.054	4.2673	4	175	5	5	12.5	30	80	95.5	115	175
Day Of Week	Weekday	176	36.0227	57.142	4.3072	1	358	5	5	15	30	101	180	265	280
Day Of Week	Weekend	83	29.0482	45.78	5.025	1	245	3	5	10	30	79	95	195	245
Season	Winter	70	19.4857	27.784	3.3208	1	180	2	5	10	20	60	60	90	180
Season	Spring	70	36.5286	48.821	5.8352	2	245	5	5	15	50	105	150	180	245
Season	Summer	79	41.5316	66.665	7.5004	2	358	5	5	15	30	160	180	270	358
Season	Fall	40	38.725	64.266	10.161	2	280	5	5	12.5	39.5	90.5	222.5	280	280
Asthma	No	238	34.7731	55.08	3.5703	1	358	4	5	10	35	90	180	245	270
Asthma	Yes	21	22.619	34.735	7.5799	5	150	5	5	15	15	35	90	150	150
Angina	No	253	32.6324	51.888	3.2622	1	358	5	5	10	30	90	160	180	270
Angina	Yes	6	82.5	102.896	42.007	10	245	10	15	22.5	180	245	245	245	245
Bronchitis/emphysema	No	247	33.0607	52.903	3.3661	1	358	5	5	10	30	90	175	195	270
Bronchitis/emphysema	Yes	12	48.75	70.522	20.358	5	245	5	5	15	77.5	95	245	245	245

Note: A "*" Signifies missing data. "DK" = The respondent replied "don't know". Refused = Refused data. N = doer sample size. Mean = Mean 24-hour cumulative number of minutes for doers. Stdev = standard deviation. Stderr = standard error. Min = minimum number of minutes. Max = maximum number of minutes. Percentiles are the percentage of doers below or equal to a given number of minutes.
Source: Tsang and Klepeis, 1996.